

Fifteenth Anniversary and Annual Review Number

# SOUTHERN TEXTILE BULLETIN

VOL. 30

CHARLOTTE, N. C., THURSDAY, MARCH 4, 1926

NUMBER 1

BOYCE  
KNOT



SPOOLERS  
KNOT



WE call your attention to the two types of knots shown above—at the left, the Improved Boyce Knot, as produced by the Boyce Weavers Knotter. The cut at the right shows the old-fashioned spooler knot. The use of this old-fashioned spooler knot has cost the cotton mills of the United States enough money in the way of lack of production and seconds, to put a considerable stretch of cement paving in every one of the 3,014 Counties of the United States.

By adopting the BOYCE WEAVERS KNOTTER, the mills can save this profit for themselves.

Note from the illustration of the Boyce Knotter that the knots will weave right into the cloth and bury themselves, thereby being invisible. It is absolutely impossible to imbed the spoolers knot into the cloth, to say nothing of the loss of production caused by

spooler knots on looms and resultant inferior grade of cloth, or seconds, which show small holes in the cloth, when knots are pulled out by the cloth inspector.

The illustration above does not exaggerate the proportionate scale of difference between the Boyce Weavers Knot and the Old-Fashioned Spoolers Knot.

WITHIN THE PAST WEEK WE HAVE SHIPPED 65 BOYCE WEAVERS KNOTTERS TO ENGLAND, 172 TO CANADA, AS WELL AS FILLING ORDERS FROM 46 SOUTHERN MILLS AND 22 NEW ENGLAND MILLS. OUR SHOP IS RUNNING DAY AND NIGHT.

INCREASE YOUR WEAVE ROOM PRODUCTION, DECREASE YOUR SECONDS, IMPROVE THE CHARACTER AND QUALITY OF YOUR CLOTH BY ADOPTING THE BOYCE WEAVERS KNOTTER.



MILL DEVICES CO., INC.  
GASTONIA, N. C.

## BOYCE Weavers KNOTTER



# Reeds—Reeds—Reeds

15 years experience in making Loom Reeds.  
Each year some improvement. Ask almost  
any weave mill in the South. Do you use  
them?

## Charlotte Manufacturing Co.

Card Clothing and Reeds

Charlotte, - - - - - North Carolina



### Giving substance to an ideal

WHO among dyestuff users has not come to the conclusion that the organization delivering quality in dyestuffs as well as dependable service is entitled to every encouragement?

As the sterling mark distinguishes the trustworthy and valuable so the trademark of this company conveys the message of quality in dyestuffs.

We have given reality to an ideal and our encouragement is the increasing patronage of experienced dyestuff users.

### GENERAL DYESTUFF CORPORATION

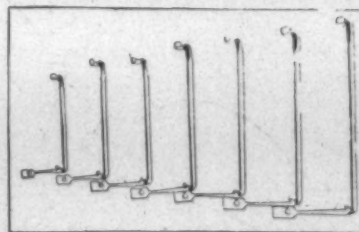
230 Fifth Avenue, New York

Boston  
Philadelphia

Providence, R. I.  
Chicago

San Francisco  
Charlotte, N. C.

## You Get Service



From Our  
Flyer  
Pressers

If your machinery is not producing as it should and you find that new flyers, spindles, rollers or pressers would give a greater output with a lesser amount of energy—we are in a position, with our equipment, to provide and place those new parts.

You cannot expect real service from flyer pressers unless they are perfectly fitted and polished when installed. Ours, made of Norway Iron, are ready for service before they leave our factory.

Southern  
Spindle & Flyer Co., Inc.

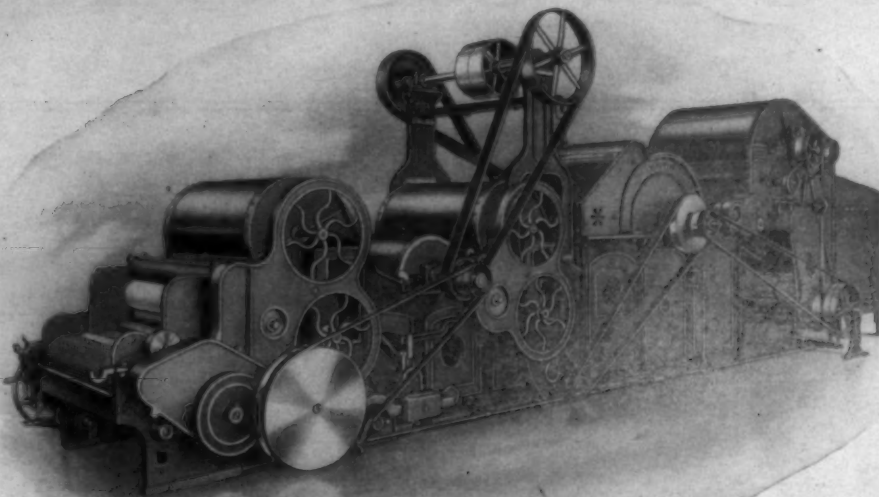
Charlotte, N. C.

Manufacturers, Overhauled and Repairers of Cotton  
Mill Machinery

W. H. Monty, Pres. & Treas.

W. H. Hutchins, V. Pres. & Sec.





Whitin Two Beater Breaker Mapper

This machine consists of a Hopper Feeder with Reserve Box Feeder, an Upstroke 41 $\frac{1}{4}$ -inch Buckley Cylinder with Evener Motion, and an 18 inch three-bladed Beater Section.

## THIS NEW MACHINE

- (1) Makes a lap sufficiently even to eliminate the use of an intermediate picker.
- (2) Makes a cleaner and more lustrous lap.
- (3) Feeds cotton evenly the whole width of itself.

## AT YOUR SERVICE

## WHITIN MACHINE WORKS

Whitinsville, Mass.

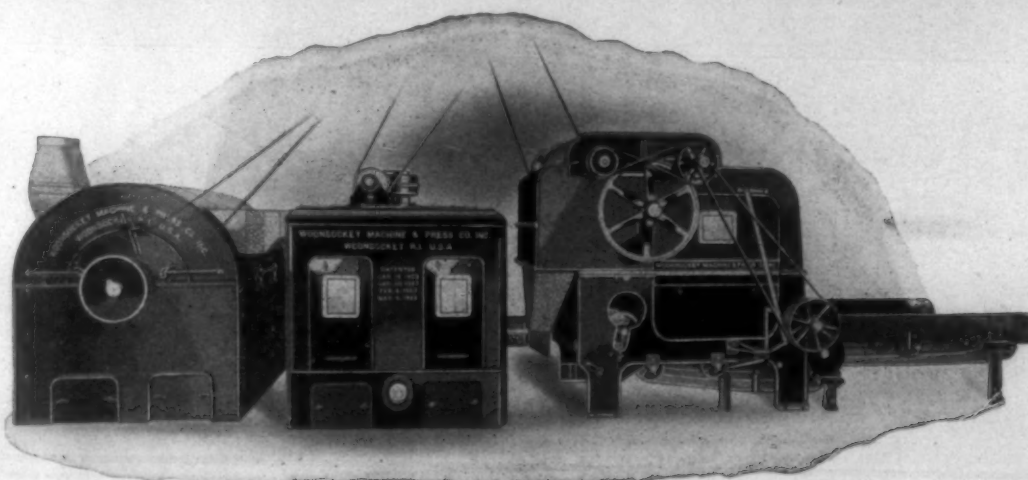
Charlotte, N. C.

Atlanta, Ga.



# WOONSOCKET

## COTTON OPENING EQUIPMENT



Horizontal Cleaner, Vertical Opener and Bale Breaker

Are you prepared to use your share of the large amount of **Low Grade Cotton** which is available this year at interesting prices?

That is, cotton which is low grade in leaf and trash, but which, when freed from these impurities, is of good character and staple.

Let us look over your present equipment and available floor space and submit our recommendations, or, show you this equipment in actual operation and the results obtained.

Have you received your copy of the new Woonsocket Roving Catalogue?

### COMPLETE

MAIN OFFICE  
AND EXPORT AGENT  
PAWTUCKET, R. I.

### EQUIPMENT

**WOONSOCKET MACHINE AND PRESS CO., Inc.**  
OPENING AND PICKER ROOM, CARDING, DRAWING AND ROVING MACHINERY

**FALES & JENKS MACHINE COMPANY**  
SPINNING AND TWISTING MACHINERY

**EASTON & BURNHAM MACHINE COMPANY**  
SPOOLING, WARPING AND WINDING MACHINERY

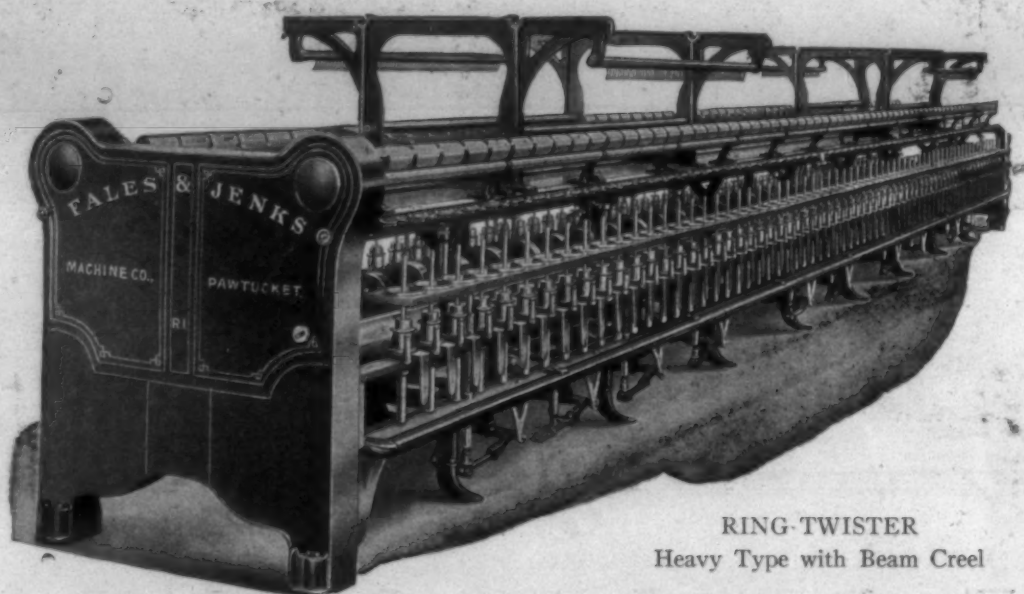
### COTTON

SOUTHERN OFFICE  
WOODSIDE BLDG.  
GREENVILLE, S. C.

### MACHINERY



# FALES & JENKS



RING-TWISTER  
Heavy Type with Beam Creel

Are you operating your ring twisters at the maximum speed for your class of work?

Many of our customers are running Fales & Jenks Twisters after many years of service, at the speeds given:

3 $\frac{1}{2}$ " diam. rings—Spindle Speed, 4400 R. P. M.  
4 $\frac{1}{2}$ " diam. rings—Spindle Speed, 3400 R. P. M.  
5 $\frac{1}{2}$ " diam. rings—Spindle Speed, 2800 R. P. M.  
7" diam. rings—Spindle Speed, 2200 R. P. M.

and on certain other classes of work still higher speeds are obtained on our new twisters.

We are always pleased to work with you in solving your spinning and twister problems.

Have you received your copy of our new Spinning or Twister catalogues?

## COMPLETE

MAIN OFFICE AND  
EXPORT AGENT  
PAWTUCKET, R. I.

## EQUIPMENT

## WOONSOCKET MACHINE AND PRESS CO., Inc.

OPENING AND PICKER ROOM, CARDING, DRAWING AND ROVING MACHINERY

## FALES & JENKS MACHINE COMPANY

SPINNING AND TWISTING MACHINERY

## EASTON & BURNHAM MACHINE COMPANY

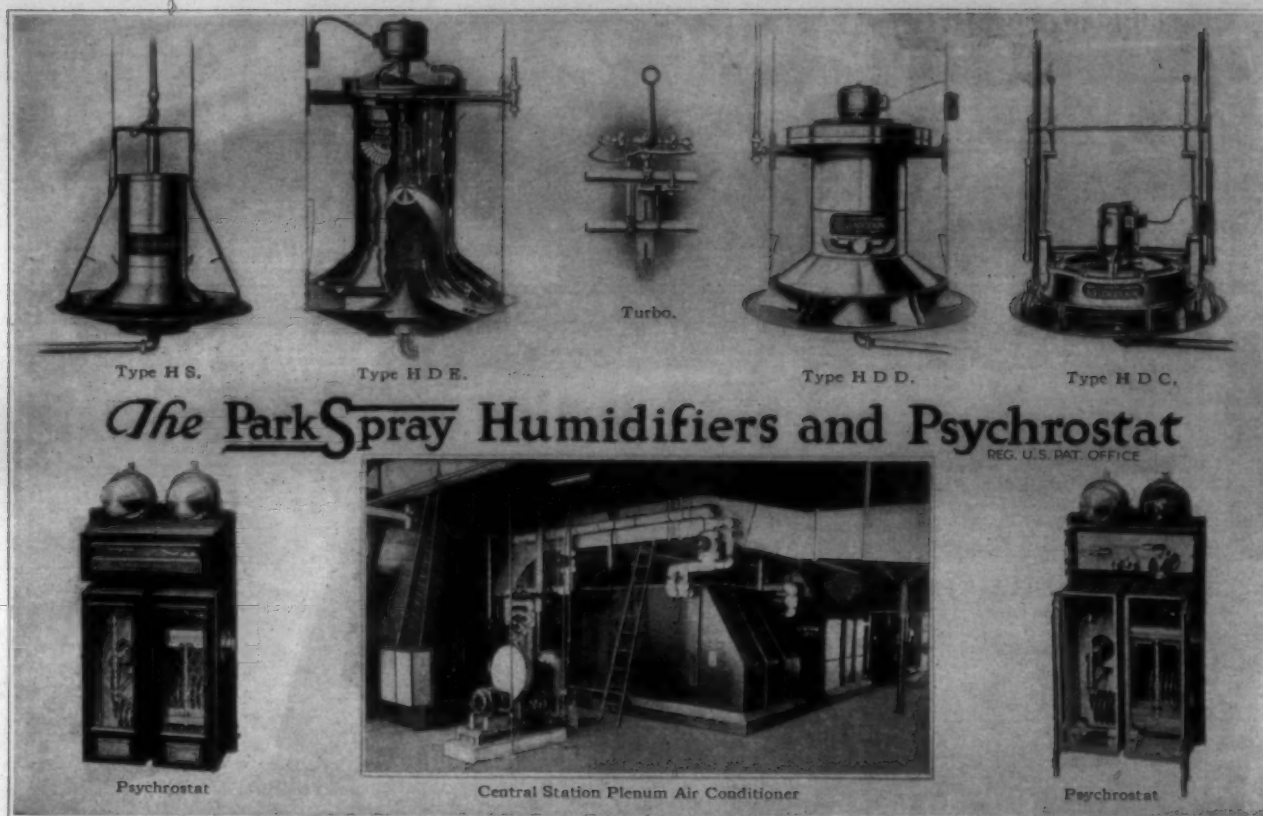
SPOOLING, WARPING AND WINDING MACHINERY

## COTTON

SOUTHERN OFFICE  
WOODSIDE BLDG.  
GREENVILLE, S. C.

## MACHINERY





### Where Do Better Humidifying Results Come From?

**W**E did not discover humidity—the practice of supplying artificial humidity is as old as wetting floors. We do not lay claim to having discovered the laws that govern humidity—they are still in the making. We do not pretend to have been the first to attempt to supply the demand for humidifying devices brought about by variations of moisture content of the air.

But since 1907 when this company (or its predecessors) entered the field, much definite knowledge of humidity has been acquired; the laws that govern humidity have been earnestly

studied so that they are now better known. We think we can lay claim to having had some part in this.

As time goes on more knowledge will be added. We expect to have a part in this, also—for we are constantly studying humidifying problems.

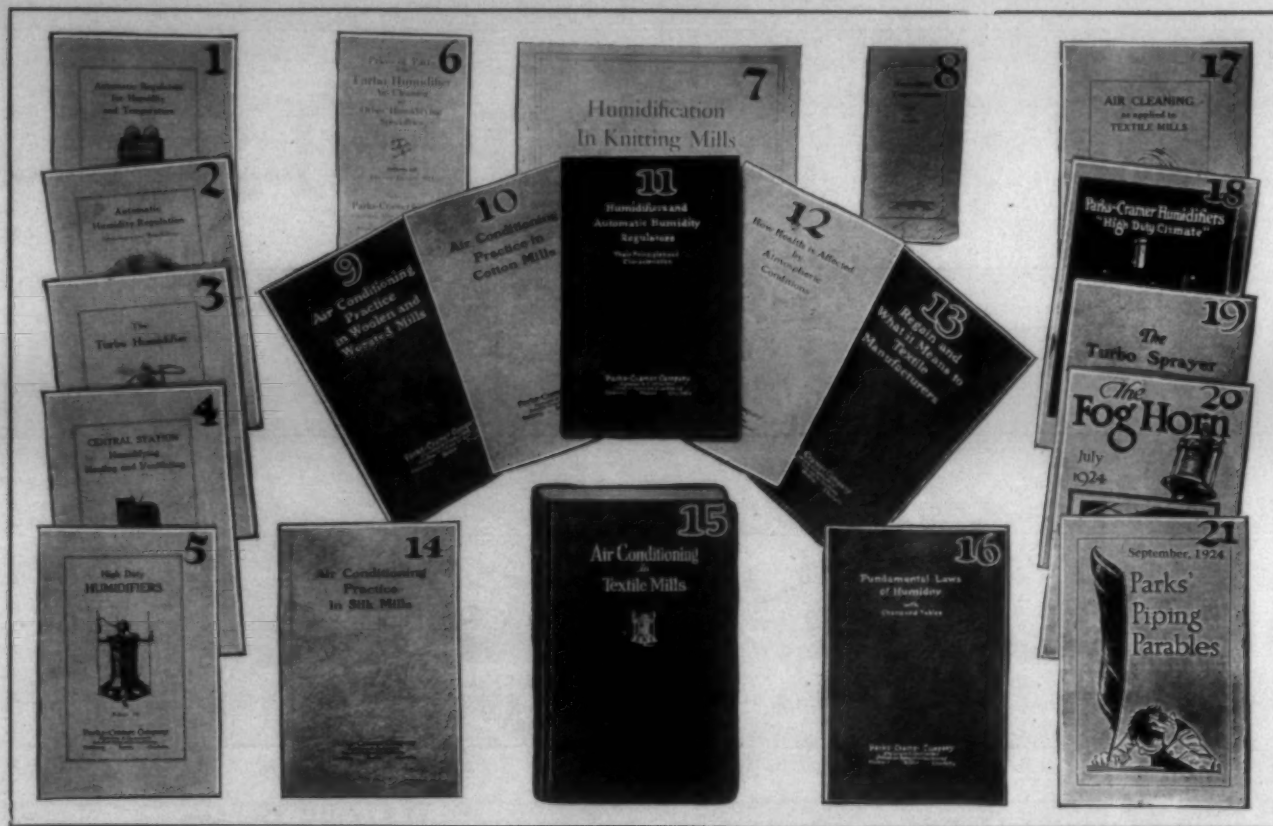
Supplying the proper humidifying apparatus is a combination of science and of experience. Humidifying experience is cumulative. Humidifying practice and skill and knowledge are improving. Where do better humidifying devices come from if not from those who have studied hardest?



**Parks-Cramer Company**  
*Engineers & Contractors*  
*Industrial Piping and Air Conditioning*  
**Fitchburg      Boston      Charlotte**







## Oh! Look at all the stuff there is about Humidification

1. Automatic Regulators for Humidity and Temperature.
2. Automatic Humidity Regulation.
3. The Turbo Humidifier.
4. Central Station—Humidifying, Heating and Ventilating.
5. High Duty Humidifiers.
6. Prices of Parts of the Turbo Humidifier, Air Cleaning and other Humidifying Specialties.
7. Humidification in Knitting Mills.
8. Humidity Experiences (A record book for use in mills.)
9. Air Conditioning Practice in Woolen and Worsted Mills.
10. Air Conditioning Practice in Cotton Mills.
11. Humidifiers and Automatic Humidity Regulators, their Principles and Characteristics.
12. How Health is Affected by Atmospheric Conditions.
13. Regain and What it Means to Textile Manufacturers.
14. Air Conditioning Practice in Silk Mills.
15. Air Conditioning in Textile Mills. This is a 480 page hand book for engineers and students. We can't afford to send it free gratis for nothing. The price is \$5.00 per copy, subject to a quantity discount.
16. Fundamental Laws of Humidity, with Charts and Tables.
17. Air Cleaning as applied to Textile Mills.
18. Parks-Cramer Humidifiers "High Duty Climate."
19. The Turbo Sprayer.
20. The Fog Horn.
21. Parks' Piping Parables.

If you are interested in ALL this business literature you are either a bear for reading—or a competitor. So don't ask for all of it. It would arouse our suspicions.

Draw a circle around the identifying numbers of those which interest you and send for them. Easier way would be to tear this ad out and send it in.

Only—don't forget your name and address.



**Parks-Cramer Company**  
Engineers & Contractors  
Industrial Piping and Air Conditioning  
Fitchburg      Boston      Charlotte

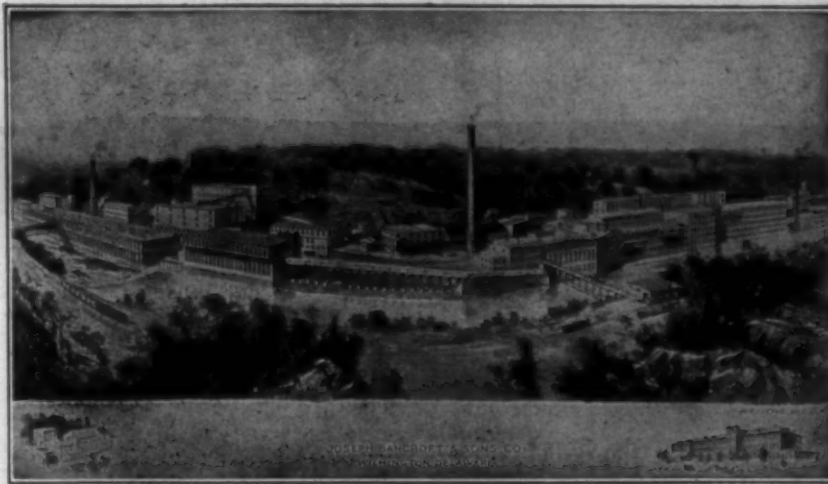




Joseph Bancroft  
1831

Joseph Bancroft & Sons  
1865

Joseph Bancroft & Sons Co.  
1889



JOHN BANCROFT, *President*  
JOSEPH BANCROFT, *Vice-President*  
JOHN MACADAM, *Vice-President*

R. O. COOKE, *Treasurer*  
DONALD S. ASHBROOK, *Secretary*  
J. H. COADY, *Purchasing Agent*

## Joseph Bancroft & Sons Co.

*Bleachers, Mercerizers, Dyers and  
Finishers Cotton Piece Goods*

Wilmington, Del.

JOHN BANCROFT, JR.  
*Sales Mgr.*

*New York Office*  
290 Broadway



# PRINTING

STEIN-HALL SPECIAL GUMS AND STARCHES have for years been the preferred thickeners in leading print works.

Your requirements in this line, be they ever so special, will be well taken care of by us.

OUR SPECIAL PRINTING STARCH, for instance, gives a very sharp print on the finest goods.

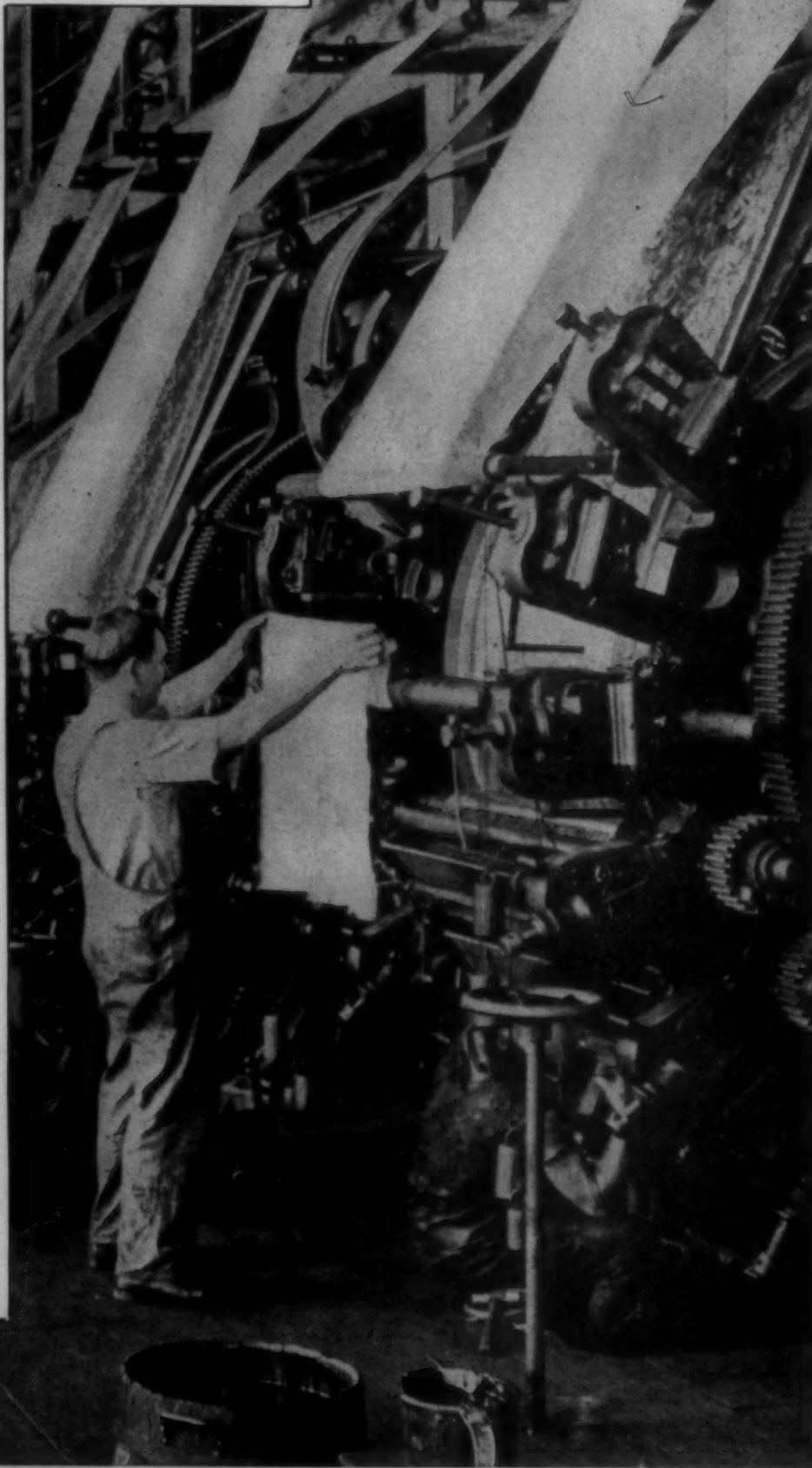
*Write for Particulars*

**STEIN, HALL & CO., INC.**

285 Madison Ave., New York City

BOSTON    PROVIDENCE  
CHARLOTTE    CHICAGO  
PHILADELPHIA    TROY

"QUALITY AND SERVICE SINCE 1866"





# Improper Lubrication is a Costly Factor

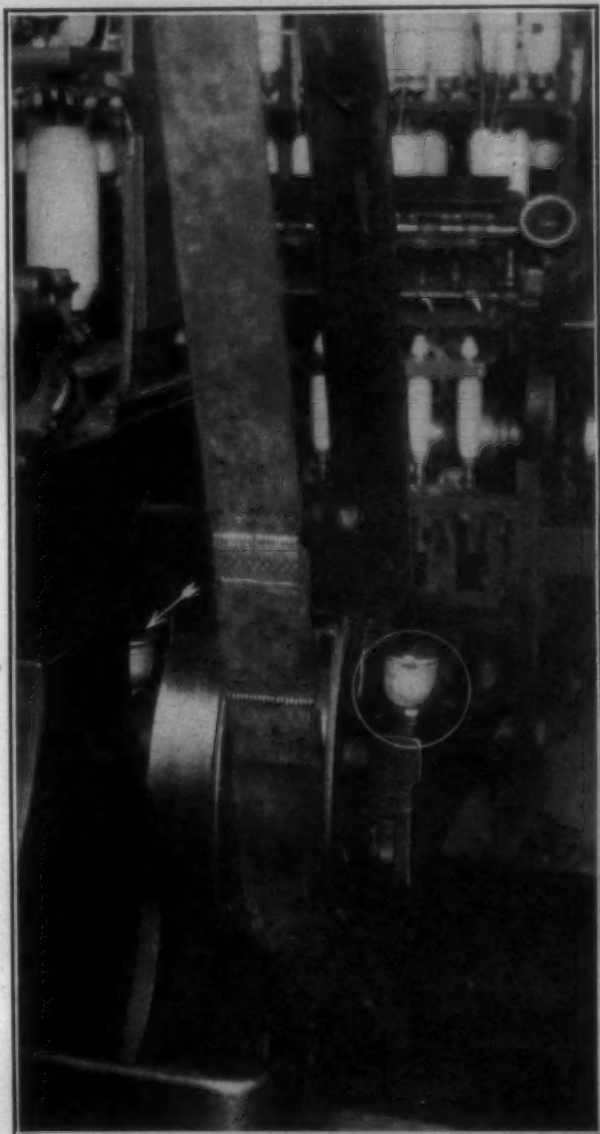


Illustration shows installation of Knorr Lubricators on one of 376 machines in a large textile mill where oil drip and hot bearings were particularly troublesome. Both have been entirely eliminated, and the lubricators are refilled only once every six months.

**"The Minimum Amount of  
Lubricant Properly Applied"**

*We shall be glad to supply you on request with sample of a Knorr Lubricator and our Catalogue containing Extremely Helpful Information on Lubrication. Write*

## Malcolm H. Smith Company, Inc.

839 Park Square Building

Boston, Mass.

*Resulting in—*

*oil-drip and the consequent spoilage of goods,  
and damage to belts and floors*

*injury to machinery resulting in shut-downs,  
repairs and replacements.*

*wasted lubricant.*

*labor and time needlessly required in re-oiling,  
and re-filling and turning down grease cups.*

**By absolutely insuring Proper Lubrication of  
Textile Machinery**

## The Knorr Lubricator

Reg. U. S. Patent Office.

Not only pays for itself in a short period of time, but also, through economies effected, shows an attractive annual return on the investment, averaging well over 100 per cent in textile mills.

Wherever Knorr Lubricators are in use manufacturers will testify to the following:

1. *Absolute elimination of oil-drip.*
2. *Better results from smoother running machinery.*
3. *Labor minimized.*
4. *Great savings of lubricant.*
5. *Reduced fire and accident hazard.*
6. *Decided reduction in repairs.*
7. *50 per cent to 90 per cent reduction in maintenance costs.*

Knorr Lubricators are in use in a large number of textile mills, including the Boston Mfg. Co., Manville-Jenckes Co., Stark Mills, and many others. They are also installed in the shops of many manufacturers of textile machinery and equipment, among these being Saco-Lowell Shops and B. F. Sturtevant Co.





**SONOCO**  
TRADE MARK REG. U.S. PAT. OFF.  
SONOCO PRODUCTS CO.  
HARTSVILLE, S. C.

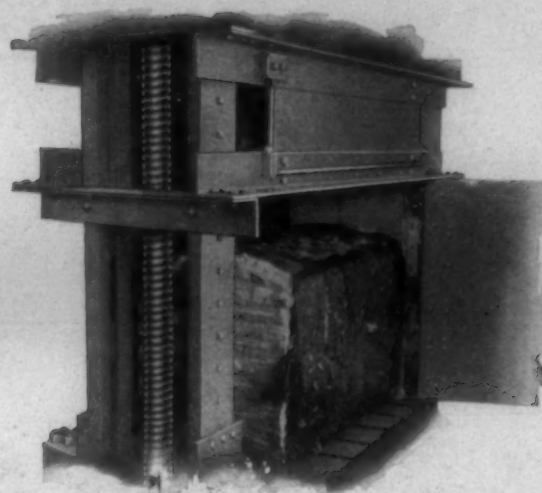
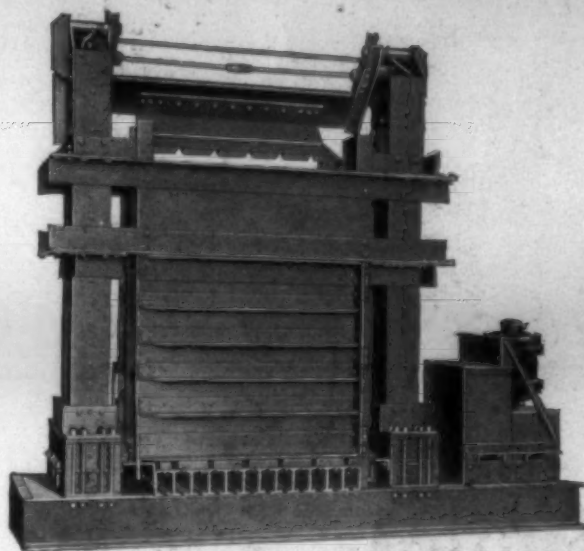
**SONOCO PRODUCTS CO., Mfr., Hartsville, S. C.**

410 Olympia Building New Bedford, Mass.	CONES, TUBES AND CLOTH-WINDING CORES FOR ALL REQUIREMENTS	W. J. Westaway Co., Ltd. Hamilton, Ontario
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# BALERS & POWER PRESSES



## Super-Rex Press—Closed Type

The Super Rex is a heavy duty Press designed and constructed for the baling and economical handling of Cotton, Cotton Waste, Wool, Shoddy, Hemp, Sisal, Kapoc, Rags and various waste materials requiring more pressure in baling. The pressure supplied by presses of this type is greater than that afforded by hydraulic methods. Standard specifications are as follows:

No. Press	Size Chamber	Height Chamber
48-C	24 x 48	72
54-C	27 x 54	84

No. Press	Size Chamber	Height Chamber
60-C	27 x 60	84
72-C	27 x 72	84

## *Specializing in Presses for the Textile Industry*

The REX ENGINEERING CORPORATION manufactures balers and power presses for every requirement. Of the types made by us are standard stock balers and presses designed for a multitude of uses.

However, we are prepared at all times to make special balers and presses to meet any unusual condition and to perform any unusual kind of work.

Rex engineering experts are highly specialized in cooperating with reference to baling problems. This service is available at all times and will be rendered promptly upon request.

*THE REX CREED: To make a press so good that the simple truth about it will always be adequate recommendation, and to price it so fairly that its value can never be questioned.*

*Submit Your Pressing Problems to our Engineering Department*



**REX ENGINEERING CORPORATION**  
**CANASTOTA, N. Y.**







# PAULSON, LINKROUM & Co.

INC.

## COTTON YARNS

WEAVING AND KNITTING

Sole Agents for

ROSWELL MILLS, Inc.

Roswell, Ga.

Double Carded Natural,  
Bleached and Dyed Yarns  
Knitting and Weaving

16s to 24s

Specialists in

High Grade 20/2 For  
Plush Trade

STANDARD COTTON MILLS

Cedartown, Ga.

Highest Quality Mule Spun Yarns  
6s to 20s Cones and Skeins.

WOODSTOCK COTTON MILLS

Anniston, Ala.

4s to 20s

Weaving Yarns

LAVONIA COTTON MFG. CO.

Lavonia, Ga.

Colored Yarns

for

Knitting and Weaving

10s to 16s

ERNALDSON COTTON MILL CO., Inc.

St. Pauls, N. C.

"Erna" Brand  
Quality Knitting Yarns  
22s to 30s

MARION MFG. CO.

Marion, S. C.

24/2 to 30/2

52 LEONARD STREET  
NEW YORK

PHILADELPHIA

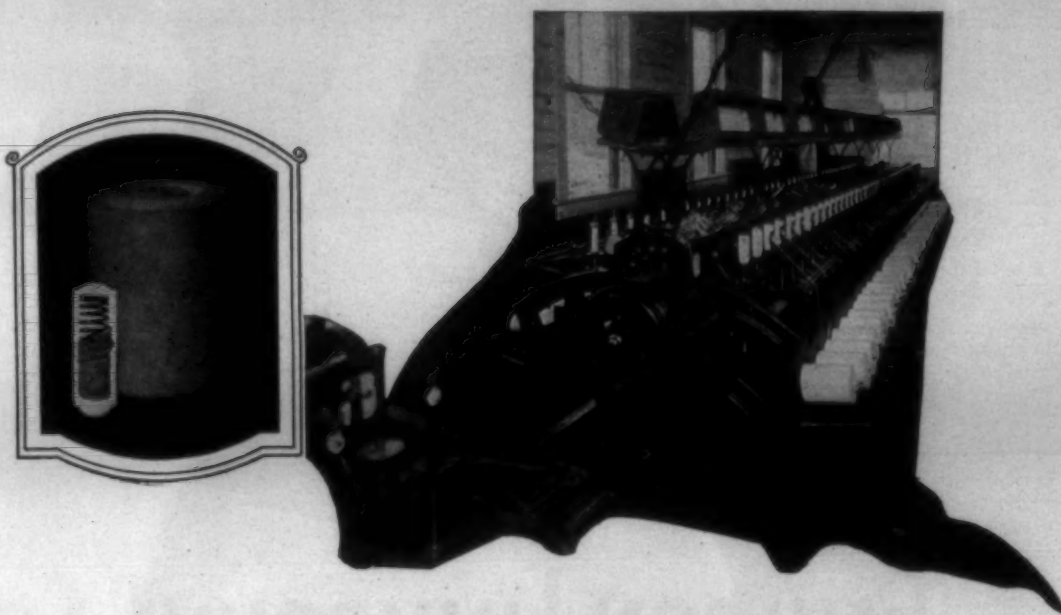
PAWTUCKET

CHICAGO

CHARLOTTE, N. C.

Sole Agencies Solicited





## The Franklin Package

### — Why It Saves Money for the Flat Braid Industry.



THE FRANKLIN PROCESS of yarn dyeing is a boon to the braiding mill of moderate size that does not find it profitable to prepare its yarn for braiding by the quiller system.

Yarn dyed by the Franklin Process is returned on Franklin Packages. They will deliver by rotation directly to bobbins, thus eliminating the extra winding operation necessary with skein-dyed yarns.

This method of preparing braider bobbins compares favorably in cost with the quiller method, when yarns of low breaking strength are used, because there is less tension on yarn running from Franklin Packages. When one end breaks on a Franklin Package, only one spindle is stopped. On a quiller, if one end breaks the whole 378 spindles are stopped.

More than that, the Franklin Package gives you better dyeing—complete penetration, more permanent shades, less shrinkage, no tangling or felting—a better product. If you buy your yarns from us on Franklin Tubes, we can offer an additional advantage, that of buying *net* weight.

Interested? Get the complete story from our book, "The Franklin Process—Its Contribution to the Textile Industry." We will forward a copy on request.

#### OFFICES

Main office and plant at  
Providence, R. I.  
Branch plant at Philadelphia  
Southern Franklin Process  
Company  
at Greenville, S. C.  
New York Office  
66 Leonard Street



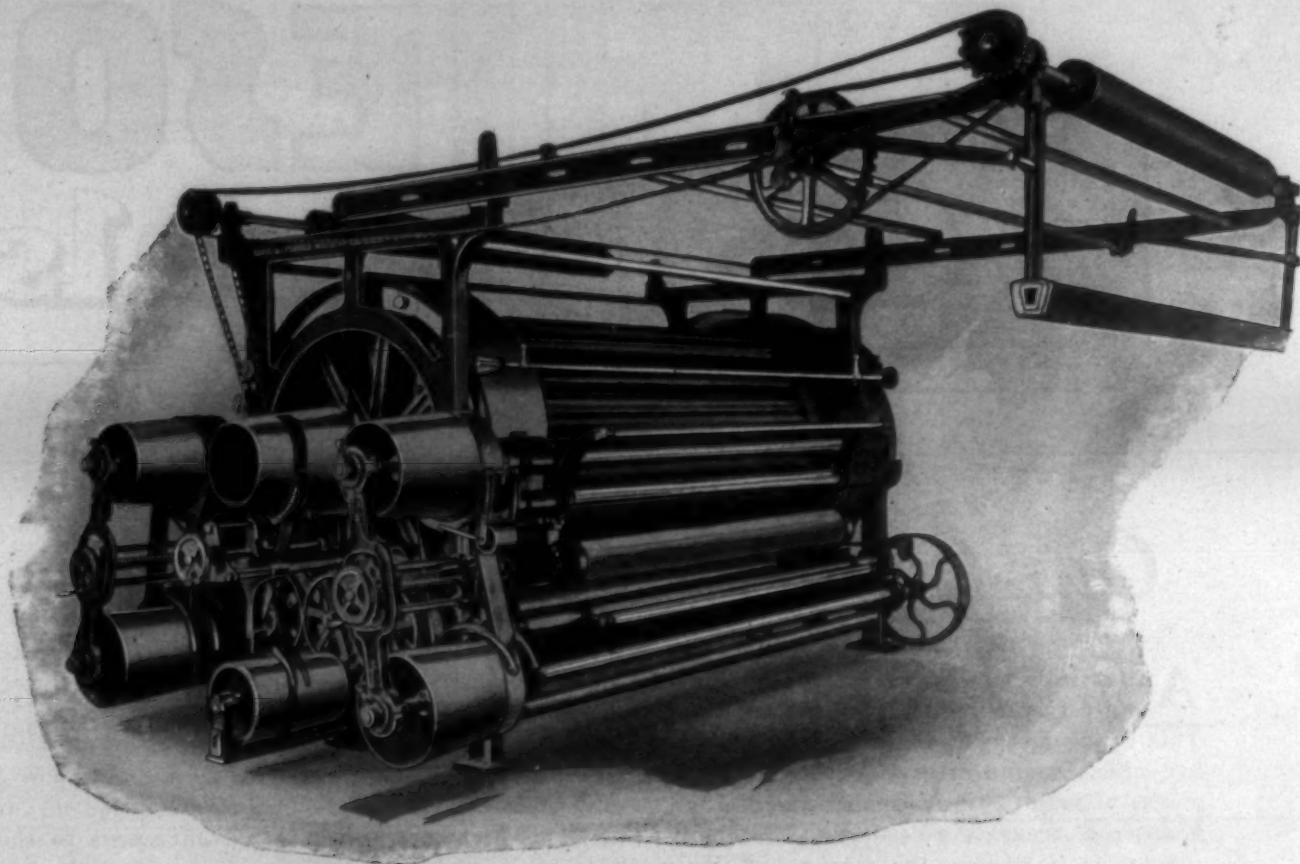
#### FRANKLIN PROCESS COMPANY

*Dyers of cotton, woolen, worsted, jute, hemp and linen yarns and silk noils,  
also yarn spinners and manufacturers of glazed yarns.*

# FRANKLIN PROCESS

*Commission Dyeing of Yarn in the Wound Form*





36 ROLL DOUBLE ACTING NAPPER FOR COTTON GOODS

To be in operation at International Textile Exposition, April 12-17, 1926  
Mechanics Building, Boston, Mass.

# The Davis & Furber Machine Co.

of North Andover, Massachusetts  
Established 1832

For 94 years manufacturing the highest type of Textile Machinery for Wool, Worsted, Cotton Waste, Jute, Mohair, Asbestos, Flax Waste, Silk Waste, and Shoddy.

Its Cards, Mules, Nappers, Pickers, Tape Condensers, Dressing Machinery, Card Clothing, etc., are the Standard for America and are constantly being exported.





# MATHIESON Chemicals

## *Our Complete Chlorine Service*

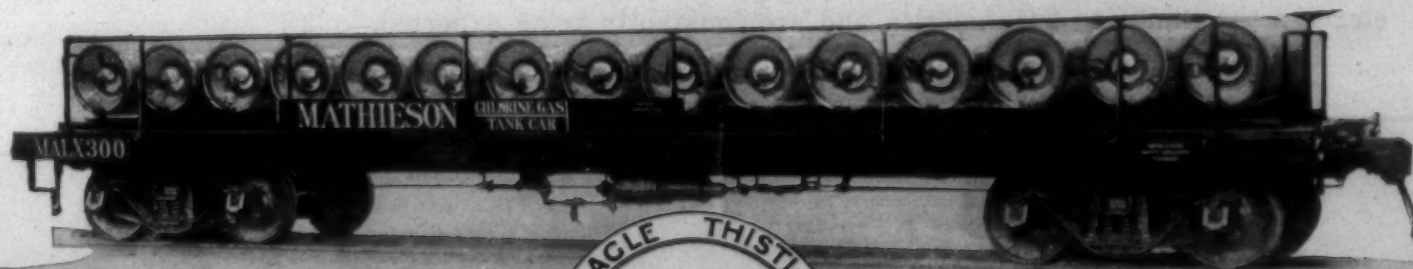
A DECISION of far-reaching benefit to the chlorine industry was the final ruling of the Interstate Commerce Commission on the Mathieson Multiple-Unit Tank Car.

This ruling has placed the Multiple-Unit Car permanently on a tank-car basis and has thus made available to manufacturers of Liquid Chlorine and other liquefied gases a flexible and economical means of maintaining shipping and storage reserves. It will permit the general extension of our practice of accurate weighing and frequent inspection which has proven so advantageous to the consumer; it assures the carriers of two methods of transporting liquefied gases in tank cars which may be expected to increase this traffic; and it has made liquefied chlorine gas available to the consumer in containers of four sizes, according to his requirements.

Today the Mathieson Company owns and operates 120 of the special tank-cars required for transporting Liquid Chlorine, 75 of the multiple-unit type and 45 of the Class V or single-unit type, in addition to its equipment of many thousands of the two sizes of chlorine cylinders.

We thus offer, by reason of the Company's foresight and present resources, a complete service on Liquid Chlorine adapted to the consumer's varying needs and to all conditions of supply and demand.

*The* **MATHIESON ALKALI WORKS Inc.**  
250 PARK AVE. NEW YORK CITY  
PHILADELPHIA CHICAGO PROVIDENCE CHARLOTTE



**Deal Direct with**

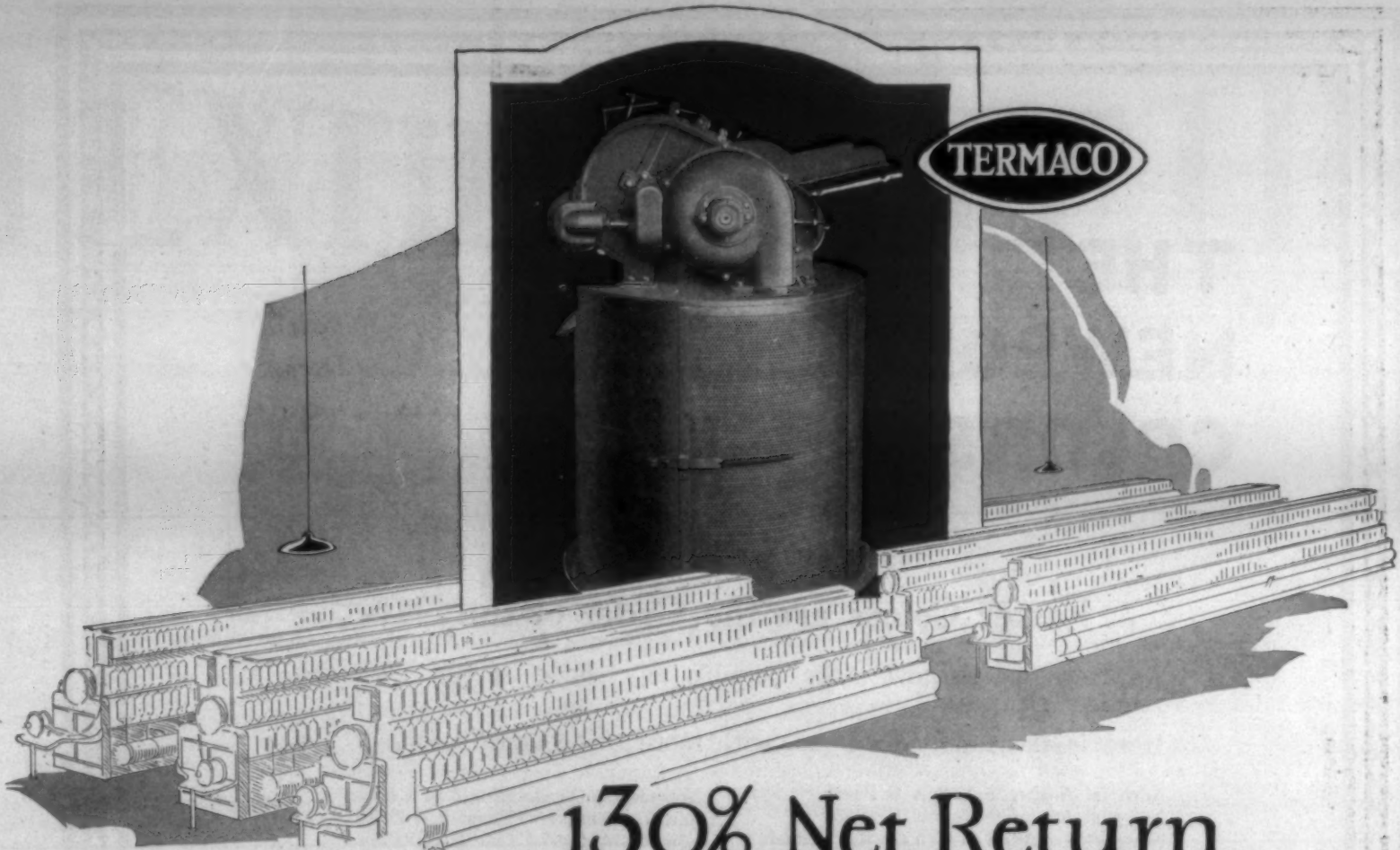
**the Manufacturer**

Caustic Soda • Liquid Chlorine  
Bicarbonate of Soda  
Anhydrous Ammonia



Soda Ash • Bleaching Powder  
Modified Virginia Soda  
Aqua Ammonia





## 130% Net Return Secured by 12000 Spindle Mill

Mill executives of some of the smaller mills have seriously questioned whether a Termaco Roving Bobbin Cleaner might be profitable for them though in larger mills it had been proved to pay for itself more than three times a year.

To obtain exact data, an engineering organization, the A. C. Nielsen Company, was retained to make an exhaustive investigation of costs and savings where a Termaco was installed in a 12,000 spindle mill.

This survey by its certified facts and figures shows an annual net return of 130% on the cost of a Termaco was secured by the 12,000 spindle mill.

Not as remarkable a return as that of 314% secured by a 44,000 spindle mill, but a showing that definitely demonstrates the economic importance of the Termaco to mills of even less than 12,000 spindles.

Executives of all mills using roving bobbins will find this new survey gives detailed information of savings which can be effected by a Termaco that will be of special interest to them.



A complimentary copy  
will be mailed upon request.  
Merely write our Engineer-  
ing Department for Nielsen  
Survey No. 13.

*The* TERRELL MACHINE COMPANY Inc.  
Charlotte, North Carolina



# THE NEWPORT COLORS

*Fast  
Dyes*

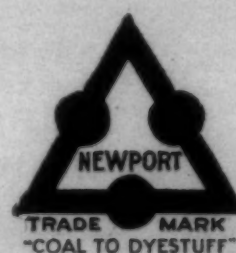
## Faster Colors are the Order of the Day

Anthrene colors now make possible any shade or tint with the required fastness.

Here is the family of Dyes, with more to be added soon—

Newport Anthrene Yellow G Paste  
Newport Anthrene Yellow R Paste  
Newport Anthrene Golden Orange G Paste  
Newport Anthrene Golden Orange RRT  
Paste  
Newport Anthrene Golden Orange 4 R  
Paste  
Newport Anthrene Red B N Paste  
Newport Anthrene Scarlet 2 G Paste  
Newport Thianthrene Pink FF Paste  
Newport Anthrene Blue GCD Paste  
Newport Anthrene Blue R S Paste  
Newport Anthrene Dark Blue BO Paste  
Newport Anthrene Blue G C Paste  
Newport Anthrene Blue BCS Paste

Newport Anthrene Blue 3 G X Paste  
Newport Anthrene Violet 2 R Paste  
Newport Anthrene Jade Green Supra  
Newport Anthrene Jade Green Paste  
Newport Anthrene Green B Double Paste  
Newport Anthrene Green 3 G Paste  
Newport Anthrene Green G G Paste  
Newport Anthrene Blue Green B Paste  
Newport Anthrene Brown BB Paste  
Newport Anthrene Black B Double Paste  
Newport Anthrene Black C Paste  
Newport Anthrene Black BB Paste  
Newport Anthrene Black DS Paste  
(for silk)  
Newport Anthrene Black G W Paste



## NEWPORT CHEMICAL WORKS, Inc.

PASSAIC, NEW JERSEY

BRANCH OFFICES AND WAREHOUSES

Boston, Mass., Providence, R. I., Philadelphia, Pa., Chicago, Ill., Greensboro, N. C., Greenville, S. C.



# SOUTHERN TEXTILE BULLETIN

Library, Univ. of  
North Carolina

PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 18 WEST FOURTH STREET, CHARLOTTE, N. C. SUBSCRIPTION \$2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MARCH 2, 1911, AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MARCH 3, 1879.

VOL. 30

CHARLOTTE, N. C., THURSDAY, MARCH 4, 1926

NUMBER 1

## *Fifteen Years' Review*

By David Clark, Editor

IT has been suggested that I contribute to the Fifteenth Anniversary Number of the Southern Textile Bulletin a sketch of its career, and having noticed that the editors of two English journals publish similar sketches in their anniversary numbers, I decided to adopt the suggestion.

In 1900, while engaged in the cotton mill business, I was employed by the Southern and Western Textile Excelsior of Charlotte to write a portion of their editorials.

Although my name was not carried upon the editorial page, I wrote the editorials for a period and received a small remuneration for same.

The Southern and Western Textile Excelsior was then in its prime and I became much interested in its work.

During the previous year I had won second prize in their discussion contests while writing under the name "Hobo," and I continued to take part in the discussions, but that year my brother, W. A. Graham Clark, now textile expert for the Tariff Commission, won first prize, and some man, I think it was W. P. Hurt or W. M. Driver, beat me for second prize.

After a disastrous experience with the 1907 panic I found myself in need of a job, and having formed a liking for textile journalism, naturally turned towards that field.

The Southern and Western Textile Excelsior had by that time been consolidated with the American Cotton Manufacturer, a paper founded by several cotton manufacturers, and the new paper was known as the American Textile Manufacturer.

I finally made an arrangement by which I purchased half interest in the American Textile Manufacturer and became editor in June, 1908. Under the arrangement I received a salary of \$125 per month and paid \$50 per month of that on my purchase of the half interest, leaving me \$75 per month on which to live.

I changed the name of the journal to the Textile Manufacturer and installed the personal page and the discussion page which had made Southern and Western Textile Excelsior so popular in previous years.

I found that we had only four hundred subscribers and not enough

advertising to pay expenses, but the new features attracted subscribers and in less than a year we were on a paying basis.

We continued to grow rapidly for two years but the divided authority incident to equal ownership caused disagreements which made it undesirable to continue.

Having no money, it was impossible for me to purchase the interest of the other party and I therefore sold out at his price and found myself just before Christmas, 1910, without a job and with less than \$600 and with no source from which to obtain any additional funds.

During my two years as editor of the Textile Manufacturer, I had made a large number of friends in the mills and among the machinery and supply men, and many of them urged me to start a journal of my own.

I wanted to continue in textile journalism but did not see how I could launch a journal with only \$600.

Two days before Christmas, I met John Dabbs near the Realty Building in Charlotte and he again urged me to start a journal and said that he would guarantee me the advertising of A. Klipstein & Co., whom he represented at that time.

I went to the office of Fred H. White in the Realty Building and told him what Dabbs had said and he added his encouragement and guaranteed me the advertising of the Stafford Company.

After talking with a few others I decided to shoot my entire capital of \$600 on an effort to launch a textile journal, and on January 12, 1912, printed three hundred copies of a specimen edition.

I of course had no advertisers but in order to make it look like a regular journal inserted those of a number that I hoped to get.

With this "specimen edition" and letters from Southern agents of many of the machinery manufacturers, I left for New England on the trip that meant success or failure to me.

If I failed to get enough advertising to justify starting, I knew I would have to quit and I was determined that I would succeed.

I had only ten subscribers then and it required high powered salesmanship to sell advertising upon promises and prospects, but in two weeks I covered every manufacturer that I considered a possible prospect.

I had to sell them and did sell them and returned South with signed contracts for \$4,200 and promises of about \$1,000 more.

The advertisers that I sold on that trip were the Draper Company, Wm. Firth Company, H. A. Metz & Co., Metallic Drawing Roll Company, S. A. Felton & Son Co., Ashworth Bros., Arabol Manufacturing Company, Grinnell, Willis & Co., F. W. McLanathan & Sons, A. Klipstein & Co., Psarski Dyeing Machine Company, G. M. Parks Company, American Moistening Company, Joseph Sykes Bros., The Stafford Company, C. G. Sargent Sons Corp., Kilburn, Lincoln & Co., and the New Brunswick Chemical Company.

I often wonder how I managed to get contracts from that many firms, but it must have been salesmanship based upon necessity or else due to their faith in me.

I immediately began the building of a subscription list and on March 2, 1911, published Vol. 1, No. 1, of the Southern Textile Bulletin.

On account of my limited revenue, I could employ no assistants except a stenographer for half of each day and it was very seldom that I could afford to get to my office later than 6 a. m. or leave before 11 p. m.

In my first editorial entitled "Successor to Nothing" I said:

"Our editorial policy will be conservative but we will not be afraid to speak out on all matters that affect the textile industry of the South or the welfare of its people."

I had the idea then, and it has always remained with me, that a journal that gets its support from an industry should render service and I have tried to make the Southern Textile Bulletin of real service to the textile industry of the South.

In my third issue I expressed my resentment of a speech made by A. J. McKelway, field secretary of the National Child Labor Committee, before the Southern Commercial Congress at Birmingham, Ala.

My remarks aroused the animosity that existed between McKelway and myself from that date until his death.

On March 30 we announced that our paid subscriptions were 1,000 and on April 27th that they had reached 1,500. The easiest part of the work of the Southern Textile Bulletin has always been securing subscriptions.

On May 11th we ran a very successful prize contest upon "Opening, Mixing and Picking," which was the predecessor of many other contests on practical subjects that we have run since that time.

We had originally opened business in a back room on the eleventh floor of the Realty Building, that being the cheapest room I could get, but by June advertising and subscriptions were coming so fast that we felt justified in moving to a front room on the ninth floor of the same building.

The work was becoming heavier than I could handle by myself and I looked around for an assistant and secured D. H. Hill, Jr., son of the president of North Carolina State College, and grandson of the Confederate General, D. H. Hill.

Mr. Hill had just left Princeton University and desired to enter journalism. He has been with us as associate editor since June 22, 1911, with the exception of the period of the world war when he was in the army.

During the summer of 1911 we were deeply interested in the proposed tariff bill before Congress and did our best to aid in securing adequate protection for the cotton goods industry.

At the end of our first six months August 31, 1911, we were able to state that we had more paid subscribers among Southern cotton mills than any other journal.

On January 1, 1912, we issued the first edition of Clark's Directory of Southern Textile Mills, which has been followed by editions every six months since then.

In January, 1912, we ran another prize contest, this time for the best article on "Management of Help," and a large number were contributed.

Our Feb. 29, 1912, issue completed our first year, and I found that as the result of my hardest year's work I had made \$528, or in other words,



that was my salary for the year, but as I was looking forward instead of backward, I was very much pleased with the result.

In our issue of March 7, 1912, we said editorially:

"When Gabriel blows his trumpet on judgment day we have no doubt that somebody will come forward with a report to the effect that the Southern cotton mill operatives are not wearing their halos at the right angle.

"The Southern cotton mills have been investigated and investigated and the Labor bureau at Washington has many reports dealing with every phase of Southern cotton mill life, but it seems that there is no end and they can never let us alone."

That statement was true in March, 1912, and is equally true in March, 1926.

In August, 1912, A. J. McKelway made an attack upon the Georgia Legislature and I editorially expressed my opinion of his false statements.

Things were rather quiet during the latter part of 1912 and we reached the end of our second year on March 1, 1913, and were much pleased with the growth that we had made both in subscribers and advertising.

During the spring and summer of 1913 we were interested in the new tariff bill before Congress and rendered some aid in securing legitimate protection for cotton manufacturers.

In February, 1914, I noticed that a number of whiskey houses in Chicago and other places were ordering Clark's Directory of Southern Textile Mills as a mailing list with which to solicit whiskey orders in the South and promptly issued instructions that in the future all such checks should be returned.

I immediately received a flood of letters from mill treasurers, superintendents and overseers commending my action and I have never doubted since then that the men in the textile industry of the South would get behind anything that would tend to improve the morals of the mill people.

In June, 1914, the National Association of Hosiery and Underwear Manufacturers were led to take a position that definitely aligned them with a certain political party whereas I believed that an association of that kind should have no political affiliation and so stated.

My editorial provoked a sharp reply from Fred W. Simons, of Philadelphia, which we published in full.

On account of our knowledge of the mills we found that many salesmen acquired the habit of asking us to make out routes for them and we therefore decided to add to Clark's Directory of Southern Textile Mills the "Hin's for Traveling Men" section which has been a feature since the July 1, 1914, edition.

In July, 1914, I discovered that Henry Fink & Sons, of Baltimore, had sold a number of mills, for \$300 or more each, what they claimed to be a secret process for making lubricating oil and I wrote an editorial "Faking the Mills" that put an end to the fraud.

Fink & Son wrote abusive letters and promised to sue us for damages but no suit was ever entered because they were, indeed, fakers, and as the result of our exposure H. Fink was arrested at Greenville, S. C., but later forfeited his bond.

In August, 1914, the World War began and the first result was a severe drop in the price of cotton and cotton goods.

The cotton manufacturers were paralyzed with fear and every paper, textile or otherwise, that discussed the matter predicted calamity for the textile industry.

Our editorial predicting that the war would mean an unprecedented demand for cotton and cotton goods was at such direct variance with the general opinion that it attracted much attention and was widely reprinted, and several cotton manufacturers told me afterwards that it prevented their making mistakes that would have cost them very large amounts.

My study of the situation had convinced me that the spindles of Europe would be idle during the war and that such a condition would mean that we would have to supply the world with cotton goods.

Within a week after our prediction there was a tremendous revival in the demand for goods and a period of prosperity began.

In the fall of 1914 cotton had declined to about 7 cents and the "buy a bale" movement was started.

The plan was to get individuals and firms all over the United States to buy one or more bales at 10 cents per pound and hold same, but it seemed to me that a lot of grafters were taking the cotton from the farmers at 7 cents and delivering it to others at 10 cents, and furthermore I resented the idea of the South holding its hand out.

Our editorial, "Stopping Over," being the first unfavorable comment upon the movement, was widely copied and brought much adverse criticism upon us, but it marked the beginning of the end of the "buy a bale" movement and was afterwards commended.

On November 5, 1914, with cotton at 6½ cents per pound, we, based upon a careful study of the war situation in Europe, urged Southern cotton mills to buy cotton and to fill their warehouses to their roof.

We predicted 14-cent cotton, little realizing that the price was actually going to three times that figure.

Noticing that the National Child Labor Committee was to meet in Washington, D. C., on January 5, 1915, I wrote them asking to be allowed to make an address, and probably having the idea that I would afford some amusement, they granted my request.

I knew that I was in for a hard time and spent much care and time in preparing my remarks, which I called "A Demand for a Square Deal."

I shall never forget my sensations as I entered their convention hall on the top floor of the New Willard Hotel in Washington and was conducted to the platform.

The only persons in the room whom I knew were A. J. McKelway

and W. H. Swift, both professional agitators.

A speaker, in order to be effective, needs a friendly audience and can usually count upon, at least, a responsive audience, but as I looked over that crowd of men and women, most of them professional agitators or misguided and misinformed philanthropists, I realized that I not only did not have a friend in the hall but that their enmity would grow as I proceeded and that I might just as well take my gloves off at the start.

I had no illusions about being able to convert or influence any of those present but had seen in the occasion an opportunity to reach the entire country with the publicity of a denial of the many false statements that had been made about the textile industry of the South, and also a certain satisfaction in denouncing our traducers to their faces.

My knees were not very steady when I entered the hall but when I realized the enmity of my audience, it caused in me a feeling of anger and I never began any speech as coolly and deliberately.

I told them that I came to demand a square deal for the cotton manufacturers of the South and that I was tired of the false statements and tricky misrepresentations that A. J. McKelway, Owen Lovejoy and others of their organization were spreading over the country.

I told them of the child labor conditions that did exist and pointed out many of their false statements.

When I began there was amazement on many faces but amazement quickly turned to anger and when I stopped the storm broke. It seemed that everybody wanted to talk at the same time and there must have been twenty-five on their feet at one time.

Florence Kelly, one of the worst agitators this country ever produced, made some remarks and I told her to go back to her own New York East Side and sweep around her own door before she tried to run the affairs of North Carolina.

A preacher from Illinois came all the way down the aisle, shaking his fists but quieted down when I told him that no minister who lived among barrooms and dives (it was before national prohibition) could prescribe for my people.

After this cross fire had gone on for about ten minutes Homer Folks, secretary of the National Child Labor Committee, arose and made the following very remarkable statement and admission:

"Mr. Clark's plea for the Southern mill owners was most interesting. It aroused a line of thought in my mind which has often occurred to me in the past. He complained of ungracious statements made and asked for a square deal and that the facts should be dealt with always with strict accuracy. I wish I could encourage him to feel that the mill owners would get that sort of a square deal but no such encouragement can be held out as a matter of fact. I would like to give warning that instead of getting more nearly a square deal in the sense of more nearly accurate statements it is likely in the future to be less a square deal because that is the history of all active movements directed against serious evils.

Then the suave Mr. McKelway moved a vote of thanks for my mes-

sage and I left their hall with only one regret and that was regarding my limitations as a speaker which prevented my being more effective.

The next morning practically every newspaper in the United States carried the story on the front page, usually in large headlines, and many editorial comments followed.

I had accomplished my purpose, which was to get before the people of the country a denial of the child labor stories that were being continually told and one New York paper expressed the surprise that the denial had been so long delayed.

The Charlotte Observer very kindly said:

"In a way entirely his own Mr. Clark has performed a service to the industrial interests of the South in particular and to the wholesome enlightenment of the country in general."

A few weeks later while spending a Sunday in Boston I noticed that Owen Lovejoy, secretary of the National Child Labor Committee, was to make an address that afternoon at the Tremont Theatre.

I happened to meet W. D. McNeil, of Fayetteville, N. C., and we decided to hear Lovejoy.

When we reached the theatre we found it packed and only managed to get seats on the next to the last row in the top balcony.

It was the kind of audience that pleased Lovejoy and he went the limit. Among other things he said:

"Down in North Carolina children of six and seven years of age are slaving in the cotton mills and I have photographs of them."

Bill McNeil went with me to the back of the stage, where I asked Lovejoy why he told such a lie. He did not take offense but gave us his authority photographs taken by a man named Hines.

After long correspondence Hines gave the name as Britt and the place as Lumberton.

I sent a representative to Lumberton and found that a farmer named Britt had been given a house in the mill village, free, while dying of blood poison. His wife tried to earn a little money in the mill but his daughters, eleven and thirteen (not six and seven), had never worked a single day and were at home when photographed.

I placed all this information in the hands of Lovejoy, but he continued to present his photographs to audiences as proof that children of six and seven years of age worked in North Carolina mills.

I was hardly through with Lovejoy before A. J. McKelway broke out with a new form of attack in Washington.

He went before the Commission on Industrial Relations and gave testimony which, according to press reports, showed that many men in Southern cotton mills received only \$2.00 per week.

I hurried to Washington and soon discovered the source of his juggled figures.

He had dug up some old figures of ten years previous and in them, as is always the case, were given the wages of men who worked only one day or two days of the week investigated.

McKelway tried to hide that fact but when pushed by Chairman



Walsh to state how to determine the daily wage finally said to divide amount given by 6, which placed the daily wages as 33 1-3 per day.

I had a hard fight to get a hearing before the Commission on Industrial Relations but was finally given a fifteen-minute hearing and completely refuted the McKelway testimony, which, however, was a very easy matter for, once in his life, McKelway had taken a chance and left himself in a vulnerable position.

I had not thought that Congress would pass any Federal Child Labor Law but in February, 1913, the House, by a vote of 233 to 43, passed the Palmer-Owen Bill, which prohibited the interstate shipment of the product of mills that employed children contrary to the provisions of the laws.

The American Cotton Manufacturers' Association passed a resolution condemning the Palmer-Owen Bill, but I had seen enough of those behind the measure to realize that there must be organized opposition.

I wrote Capt. Ellison A. Smyth, of Greenville, and urged upon him the necessity of forming an organization.

I suggested that he invite three prominent mill men from each State to meet us in Greenville for a conference.

At that meeting the executive committee of Southern Cotton Manufacturers Association was formed with the following members:

S. F. Patterson, Roanoke Rapids, N. C., chairman; W. C. Ruffin, Mayodan, N. C., A. F. McKissick, Greenwood, S. C., Harry Meikleham, Lindale, Ga., Scott Roberts, Anniston, Ala., T. L. Wainwright, Stonewall, Miss., and Garnett Andrews, Chattanooga, Tenn.

I was elected secretary and treasurer.

I was allowed to name the members of the committee and picked men for their fighting qualities.

W. C. Ruffin died and Harry Meikleham asked us to substitute W. J. Vereen in his place, but otherwise the committee remained intact and conducted the fights against both Federal Child Labor Laws, the successful test of their constitutionality and the campaign against the Federal Child Labor Amendment.

Soon after the organization of the committee I began to make plans for fighting or at least delaying the Palmer-Owen Bill.

Until September, 1915, we had made it a policy never to mention a cotton mill strike or labor unions but the efforts to unionize the South became so strenuous that we found it advisable on September 23, 1925, to declare our opposition and sound a warning to the mill operatives.

When Congress met in December, 1915, the Keating-Owen Child Labor Bill was introduced as a substitute for the Palmer-Owen Bill of the last session and acting for the executive committee of Southern Cotton Manufacturers, I employed ex-Gov. W. W. Kitchin of North Carolina to assist me in opposing same. Gov. Kitchin had formerly been in Congress for twelve years and from him I learned much.

It was proper that the Keating-Owen Bill should go to the Judiciary Committee but McKelway wanted it

to go to the Labor Committee and finally won.

On January 10th the hearing was held and we put on a number of prominent witnesses, including prominent doctors, but very little attention was paid to their testimony and on February 2, 1916, the House passed the bill by a vote of 337 to 46.

The bill then went to the Senate and we had a number of prominent mill men and doctors give testimony in opposition, but the influences seeking its enactment were too strong to overcome.

We found that the Mother Congress, an organization of women, was inclined to listen to reason and brought several of their officials on a visit to our mills and they returned much opposed to the bill.

We worked hard to prevent the passage of the law and had it sewed up for that session when McKelway, in desperation, induced Woodrow Wilson to go to the capital and demand, of the Senators, that it be passed, and on August 8, 1916, I sat alone in the Senate gallery while a thunder storm raged without and heard the bill passed 52 to 12.

In an adjoining gallery sat McKelway and his women cohorts with beaming faces and in their moment of victory they enjoyed watching me.

They thought that they had won and that in the future would control the labor affairs of the forty-eight States and the cotton manufacturers almost unanimously shared their opinion. Most manufacturers advised against any further fight and some, as is always the case when you lose, criticised me for having opposed the law.

I was convinced that Congress had no right to enact any such law and determined to carry it to the United States Supreme Court, and I set about raising the necessary fund.

Many mill men said I was wasting money but on account of the previous fight I had made, were willing to contribute.

I knew that Junius Parker, formerly of Graham, N. C., was rated as one of the top notch lawyers in the country and I went to New York and successfully negotiated for the employment of his firm, O'Brien, Boardman, Parker & Fox.

At the suggestion of W. C. Ruffin, I employed Manly, Hendren & Womble, of Winston-Salem, N. C.

I was later able to add Judge W. P. Bynum, of Greensboro, to our legal forces.

I asked the attorneys to describe the kind of test case that would be most effective and with that information spent weeks in search for the exact type of case and prepared three.

Roland Dagenhart, who was working at the Fidelity Mills in Charlotte, had two sons, one 13 and the other 15, and was very much opposed to the 13-year-old boy having to leave the mill and the 15-year-old boy being limited to eight hours.

My attorneys prepared an application for an injunction to prevent the Government from interfering with the Dagenhart boys, and Dagenhart gladly signed same.

The notice that the law would be tested was received with expressions of rage by McKelway and his associates and the press of the United States was very severe in its condemnation. Many manufacturers urged me to withdraw the test case but I refused to do so.

As the law did not go into effect until September 1, 1917, the actual proceeding could not begin until that date, but I wanted to get everything in shape and give our attorneys time to make careful preparations.

In February, 1923, we moved our office from the single room, 912 Realty Building, in Charlotte, to the two-room at 609 in the same building. We were growing and had to make additions to our organization.

In March, 1917, I came to realize that in spite of the prosperity of the mills during 1916, many of them were not putting their village in proper condition.

I believed that the operatives were entitled to comfortable homes with clean surroundings, and in order to impress that fact upon the industry we had a photographer take pictures of the dilapidated cottages in one mill village and published them with the name of the mill.

It naturally created a sensation and opinion was divided as to whether or not we did right, but it did result in improvements being made, not only in that village but in many others, and we therefore accomplished our purpose.

On April 12, 1917, we announced that America had entered the war and we pledged the Government the united support of the textile mills of the South and for awhile the interest of the textile industry was war more than textiles.

Although we were going to contest the constitutionality of the Keating-Owen Child Labor Law, we knew that it would be in effect for some months and we arranged several conferences between mill men and representatives of the U. S. Department of Labor in order to determine the best method of operating under same.

Washington authorities tried to arbitrarily fix the rules for the operation of the law but we arranged for a hearing in Washington and won out on several important points.

About August 15, 1917, the application of Roland H. Dagenhart for an injunction against the Federal Child Labor Law was filed and the hearing was set before Judge James Boyd at Greensboro, N. C., on August 29th.

Most people and many manufacturers expected Judge Boyd to refuse the injunction, but after an extended argument on both sides Judge Boyd granted the injunction and declared that the Keating-Owen Child Labor Law was unconstitutional.

The decision brought an outburst of abuse from almost every section of the United States, directed both at David Clark and Judge Boyd and most writers predicted that the United States Supreme Court would overrule Judge Boyd.

I called a meeting, in Charlotte, of the mill men located in Judge

Boyd's district and convinced them that it was safe to ignore the Child Labor Law and they voted unanimously to ignore same, but the situation was complicated by contrary advice given by the secretary of the Hard Yarn Spinners' Association.

The question of the constitutionality of the law had been passed up to the U. S. Supreme Court and it made no difference to me what any mill did pending the decision.

About this time my associate editor, D. H. Hill, left to join the army and I found my time more fully occupied with the publication of the Southern Textile Bulletin.

Realizing that a great deal of the criticism of the cotton manufacturing industry of the South was due to lack of information, we conceived the idea of publishing a "Health and Happiness Number," and on December 20, 1917, issued our first of that kind filled with photographs of our mills and their welfare work, and it was sent to members of Congress.

Although not nearly as large or as handsome as three later Health and Happiness Numbers, it attracted much favorable comment.

On December 27, H. L. Dalton, who had succeeded D. H. Hill as associate editor, left to join the aviation branch and I again found my time more than fully occupied. Soon thereafter secured Bill Arp Lowrance, who was then connected with the Charlotte office of the Western Newspaper Union.

As the Dagenhart case, the test case of the Federal Child Labor Law, was soon to be heard by the United States Supreme Court, I spent much time during the next weeks in New York and Washington in conference with the attorneys.

On April 15, 1918, the Dagenhart case was heard before the Supreme Court. Solicitor John W. Davis, afterwards Democratic candidate for President, argued the case for the Government, while Judge Morgan O'Brien, of New York, and W. M. Hendren, of Winston-Salem, N. C., argued our side.

In our editorial of that week we said:

"There is a general opinion that the court will divide 5 to 4. We believe that the 5 will be on our side."

I do not believe that there was a single cotton manufacturer who believed that we would win, but on Monday, June 3, 1918, my phone rang and a newspaper friend shouted "You won 5 to 4."

I ran all the way to the newspaper office to get the dispatch saying that the United States Supreme Court had, by a vote of 5 to 4, declared the Keating-Owen Child Labor Law unconstitutional.

There was intense rejoicing among our friends, but just as intense anger among the advocates of the measure, and the abuse which had been applied to Judge Boyd was shifted to the United States Supreme Court.

Speeches were made in Congress accusing the Supreme Court of setting aside the will of the people and bills were introduced having for their object the curtailing of the powers of the court.

(Continued on Page 65)



# Clark's Annual Spindle Increase List

A total of 530,396 spindles were installed by Southern cotton mills during the year 1925. The following list gives the name and location of each mill that increased the number of its spindles, together with the total by States and the total for the South. This information is compiled from data from Clark's Directory of Southern Textile Mills. Figures are as of January 1, 1926:

Alabama.	
Name of Mill.	Spindles.
Russcony Mills, Alexander City	208
*Lanier Mfg. Co., Anniston	704
*Ernestine Cotton Mills, Boaz	2,000
Geneva Cotton Mills, Geneva	1,600
Lincoln Mills of Ala., Huntsville	30,000
Kilby Cotton Mills, Montgomery	480
*Pepperell Mfg. Co., Opelika	23,952
Tallassee Mills, Tallassee	26,422
Cowikee Mills, Union Springs	1,008
Total	85,774

Arkansas.	
Arkansas Textile Co., Pine Bluff	10,000
Total	10,000

Georgia.	
Perkins Hosiery Mills, Columbus	3,000
Crawford Cotton Mills, Crawford	1,000
American Thread Co., Dalton	30,000
Boyleston-Crown Mills, Dalton	2,700
Eastman Cotton Mills, Eastman	832
*Crolley Mfg. Co., Elberton	1,000
Fitzgerald Cotton Mills, Fitzgerald	248
Grantville Hosiery Mills, Grantville	5,000
Griffin Mfg. Co., Griffin	1,000
*Highland Mills, Griffin	10,000
Cochran Cotton Mills No. 2, Hawkinsville	2,080
Lafayette Cotton Mills, Lafayette	448
Dunson Mills, LaGrange	10,000
Elm City Cotton Mills, LaGrange	464
Bibb Mfg. Co., Reynolds	1,000
Peerless Woolen Mills, Rossville	7,500
Social Circle Cotton Mills, Social Circle	3,360
Summerville Cotton Mills, Summerville	4,052
Thomaston Cotton Mills, Thomaston	2,880
Tifton Cotton Mills, Tifton	1,680
Union Mfg. Co., Union Point	448
Total	88,692

North Carolina.	
Balfour Cotton Mills, Balfour	5,700
Bladenboro Cotton Mills, Bladenboro	4,338
Elmira Cotton Mills, Burlington	600
Pennsylvania Textile Mills, Central Falls	3,516
Co-Lin Mills, Charlotte	720
Rhyne-Houser Mfg. Co., Cherryville	5,000
Robert's Mfg. Co., Concord	448
Blue Ridge Cotton Mills, Connelly Springs	1,400
Dorothy Mfg. Co., Dallas	572
Erwin Cotton Mills No. 2, Erwin	34,768
Elizabeth City Cotton Mills, Elizabeth City	200
Dixon Mills, Inc., Gastonia	1,016
Travora Mfg. Co., Graham	208
A. A. Shuford Mill Co., Hickory	3,640
Millis Cotton Mills, High Point	272
Phoenix Mills, Kings Mountain	2,800
Sadie Cotton Mills, Kings Mountain	504
Corriher Mills, Landis	11,088
Linn Mills, Landis	960
Dacotah Cotton Mills, Lexington	1,056
Boger & Crawford Spinning Mills, Lincolnton	1,600
Cross Cotton Mills, Marion	5,500
Kendall Mills, Paw Creek	3,520
Ragan Spinning Co., Ragan	2,112
Deep River Mills, Randleman	1,216
Roanoke Mills Co., Roanoke Rapids	2,000
Steele's Mills, Rockingham	4,000
Rowan Cotton Mills, Salisbury	5,000

\*Indicates new mills.

Salisbury Cotton Mills, Salisbury	3,840
Eastside Mfg. Co., Shelby	516
*Ora Cotton Mills, Shelby	6,000
Total	114,110

South Carolina.	
Anderson Cotton Mills, Anderson	546
Pendleton Mfg. Co., Anton	248
Blair Mills, Belton	1,008
River Hill Spinning Co., Cheraw	600
Lydia Cotton Mills, Clinton	9,500
Alice Mfg. Co., Easley	13,924
Franklin Process Spinning Mill, Fingerville	1,720
Irene Mills, Gaffney	208
Joanna Cotton Mills, Goldville	12,096
Grendel Mills, Greenwood	13,046
Kershaw Cotton Mills, Kershaw	12,160
*Pacific Mills, Lyman	32,000
Pacolet Mfg. Co., Pacolet	3,000
*Pageland Cotton Mills, Pageland	6,000
Pelham Mills, Pelham	176
Beaumont Mfg. Co., Spartanburg	400
*London Mills, Sumter	2,000
Kenneth Cotton Mills, Walhalla	2,400
Total	111,032

Tennessee.	
Bemis Cotton Mills, Bemis	4,788
Dixie Mercerizing Co., Chaffanooga	6,600
O'Cedar Mills, Covington, Tenn.	1,000
Borden Mills, Inc., Kingsport	88,648
Tellico Cotton Mills, Tellico Plains	2,016
Total	103,052

Texas.	
Belton Yarn Mills, Belton	1,836
*El Paso Cotton Mills, El Paso	5,016
*Mexia Cotton Mills, Mexia	5,000
Gonzales Cotton Mills, Gonzales	300
Houston Cotton & Twine Mills, Houston	5,184
Total	17,336

Virginia.	
Halifax Cotton Mills, South Boston	4,000
Total	4,000

Summary By States.	
Alabama	85,774
Arkansas	10,000
Georgia	88,692
North Carolina	114,110
South Carolina	111,032
Tennessee	103,052
Texas	17,336
Virginia	4,000

Total Spindles Installed in 1925 530,396

## Spindles To Be Installed

The following list shows, by States, spindles to be installed in Southern mills during 1926:

Alabama.	
Name of Mill.	Spindles.
*Strowd-Holdcombe Cotton Mill, Inc.	8,500
*Sauquoit Spinning Co., Gadsden	20,000
California Cotton Mills, Uniontown	10,000
Total	38,500
Georgia.	
Fulton Bag and Cotton Mills, Atlanta	50,000
Bibb Mfg. Co., Macon	20,000



Name of Mill.	Spindles.
McIntosh Mills, Newnan	5,000
*Southern Brighton Mills, Shannon	25,000
Total	100,000

**North Carolina.**

*Belmont Fabric Co., Belmont	5,000
Chronicle Mills, Belmont	5,000
China Grove Cotton Mills, China Grove	22,000
*Columbus Cotton Mills, Columbus	1,428
Cannon Mfg. Co., Kannapolis	50,000
Cannon Group Mills, sundry points	25,000
Boger & Crawford Spinning Mill, Lincolnton	6,300
Hadley-Peoples Mfg. Co., Siler City	3,240
Total	117,968

**South Carolina.**

Riverside Mfg. Co., Anderson	2,520
Total	2,500

**Tennessee.**

Dixie Mercerizing Co., Chattanooga	7,000
Standard-Coosa-Thatcher Co., Chattanooga	5,000
Total	12,000

**Texas.**

*Bowie Cotton Mills, Bowie	5,000
*Fort Worth Cotton Mills, Fort Worth	5,000
Total	10,000

**Spindles To Be Installed.**

Alabama	38,500
Georgia	100,000
North Carolina	117,968
South Carolina	2,520
Tennessee	12,000
Texas	10,000
Total Spindles to be Installed in 1926	280,988

## Clark's Annual Knitting Machine Increase List

A total of 5,783 additional knitting machines were installed by Southern knitting mills during the year 1925. The following list gives the name and location of each mill that increased its knitting equipment, together with the total by States and the total for the South. This information is compiled from data from Clark's Directory of Southern Textile Mills:

**Alabama.**

	Knitting
*Avalon Knitwear Co., Anniston	20
*Glorie Underwear Mills, Eufaula	45
Davis & Allcott, Gadsden	220
*Aycock Hosiery Mill, Huntsville	100
*Erwin Mfg. Co., Huntsville	16
Scottsboro Hosiery Mill, Scottsboro	80
*Kyle Hosiery Mills, Tuscaloosa	110
Total	591

**Georgia.**

Climax Hosiery Mills, Athens	48
*The Carroll Mills, Carrollton	10
*Fuller Hosiery Mills, Carrollton	20
The Cartersville Mills, Cartersville	17
Barnes Knitting Mills, Cedartown	10
Douglas Hosiery Mills, Douglasville	80
Griffin Hosiery Mills, Griffin	20
Marietta Knitting Mills, Marietta	15
Cherokee Hosiery Mills, Rome	50
Chester Knitting Mills, Rome	25
Rome Hosiery Mills, Rome	144
Union Mfg. Co., Union Point	64
Villa Rica Hosiery Mills, Villa Rica	10
Total	513

\*Indicates new mills.

**Kentucky**

Name of Mill.	Knitting Machines
Swiss Hosiery Mills, Louisville	66
*Glaussner Hosiery Mills, Paducah	23
Priester Mills, Paducah	25
Princeton Hosiery Mills, Princeton	10
Total	124

**Louisiana.**

*Marion Pelican Hosiery Mills, Coushatta	30
Floradel Knitting Mills, New Orleans	18
Total	48

**North Carolina.**

Wiscasset Mills, Albemarle	15
Acme Hosiery Mills, Ashboro	100
*Park Hosiery Mills, Ashboro	84
*Boone Knitting Mills, Boone	40
Alamance Hosiery Mills, Burlington	30
*G. A. Burke Silk Co., Burlington	25
Keystone Finishing Mill, Burlington	70
*Liberty Hosiery Mills, Burlington	50
Love Knitting Mill, Burlington	54
McEwen Knitting Co., Burlington	81
Mohawk Hosiery Mills, Burlington	12
*National Hosiery Mills, Burlington	50
Whitehead Hosiery Mills, Burlington	50
Nebel Knitting Co., Charlotte	10
Concord Knitting Co., Concord	34
Hoover Hosiery Mills, Concord	2
Berry Hosiery Mills, Connelly Springs	8
Drexel Knitting Mills, Drexel	100
Golden Belt Mfg. Co., Durham	12
*Ruth Hosiery Mills, Durham	80
Louise Knitting Mills, E. Durham	32
Chipman-Burrows Hosiery Mills, East Flat Rock	110
Pasquotank Hosiery Co., Elizabeth City	26
Standard Mfg. Co., Elizabeth City	11
Gibsonville Hosiery Mills Co., Gibsonville	41
Childrey Hosiery Mills, Haw River	8
Riverside Hosiery Mills, Haw River	20
*Harkins-Hammock-Whitlock Co., Hendersonville	20
Best Hosiery Mills, Hickory	51
Hickory Hosiery Mills, Hickory	50
*Setz-Right Hosiery Mills, Hickory	50
Amos Hosiery Mills, High Point	12
Commonwealth Hosiery Mills, High Point	10
Melrose Hosiery Mills, High Point	60
Pointer Hosiery Co., High Point	25
Robbins Knitting Co., High Point	25
*Southern Fabric Mills, High Point	150
J. A. Cline & Son, Hildebran	18
Vance Knitting Mills, Kernersville	60
Shoaf-Sink Hosiery Mills, Lexington	23
Elizabeth James Mills, Marion	7
Garrou Knitting Mills, Morganton	55
Ridgeview Hosiery Mills, Newton	30
Wilkes Hosiery Mills, North Wilkesboro	23
William Carter Co., Reidsville	11
*Nancy Hosiery Mills, Salisbury	11
Staley Hosiery Mills, Staley	3
*Crescent Knitting Co., Statesville	140
*Maurice Mills Co., Thomasville	50
*Martinat Hosiery Mills Co., Valdese	20
Hanes Hosiery Mills, Winston-Salem	160
Total	2,219

**South Carolina**

Anderson Hosiery Mills, Anderson	40
Sultrene Mills, Gaffney	15
Carlton Mfg. Co., Spartanburg	88
*Powell Knitting Co., Spartanburg	200
Star Hosiery Mills, Spartanburg	20
Total	363

**Tennessee.**

Athens Hosiery Mills, Athens	50
Champion Knitting Mills, Chattanooga	75
McAllester Hosiery Mills, Chattanooga	40
Nick-a-Jack Hosiery Mills, Chattanooga	71
Signal Knitting Mills, Chattanooga	10

(Continued on Page 114)



# Growth in Spindles and Looms

The following is a complete list of the cotton spindles and looms in the South in 1911 and in 1926.

This list not only permits a comparison of the growth of individual mills but also the growth by towns and by States.

We believe that this is the first time anything of the kind has been attempted, but believe it will be found interesting. The names of some of the 1911 mills that have passed out or been reorganized will awaken memories in some of the older manufacturers.

The following is a complete list of the cotton spindles and looms in the South in 1911 and in 1926.				1911				1926							
This list not only permits a comparison of the growth of individual mills but also the growth by towns and by States.				1911				1926							
We believe that this is the first time anything of the kind has been attempted, but believe it will be found interesting. The names of some of the 1911 mills that have passed out or been reorganized will awaken memories in some of the older manufacturers.				1911				1926							
1911 Spindles Looms				1926 Spindles Looms				1911 Spindles Looms				1926 Spindles Looms			
ALABAMA				ALABAMA				Lanett				Lanett			
Alabama City				Alabama City				Lanett Cotton Mills				Lanett Cotton Mills			
Dwight Mfg. Co.				Dwight Mfg. Co.				West Point Mfg. Co.				West Point Mfg. Co.			
Alexander City				Alexander City				Lang Mfg. Co.				Lang Mfg. Co.			
Alexander City Cot. Mill				Avondale Mills				Mobile Cotton Mills				Mobile Cotton Mills			
Russell Mfg. Co.				Russell Mfg. Co.				Barker Cotton Mill Co.				Barker Cotton Mill Co.			
Bettie Francis Cotton Mill				Russell Mfg. Co.				Montala Mfg. Co.				Montala Mfg. Co.			
Roberta Mill				Russell Mfg. Co.				Montgomery Cordage Co.				Montgomery Cordage Co.			
Russco Mills				Russell Mfg. Co.				Montgomery Cotton Mills				Montgomery Cotton Mills			
Russcony Mills				Russell Mfg. Co.				Montgomery Cotton Mills				Montgomery Cotton Mills			
Anniston				Anniston				Montgomery				Montgomery			
Adelaide Mills				Adelaide Mills				Montala Mfg. Co.				Montala Mfg. Co.			
American Net & Twine Co.				American Net & Twine Co.				Montgomery Cordage Co.				Montgomery Cordage Co.			
Anniston Cordage Co.				Anniston Cordage Co.				Montgomery Cotton Mills				Montgomery Cotton Mills			
Anniston Mfg. Co.				Anniston Mfg. Co.				Co., Inc.				Co., Inc.			
Anniston Yarn Mills				Anniston Yarn Mills				Kilby Cotton Mills				Kilby Cotton Mills			
Woodstock Cotton Mills				Woodstock Cotton Mills				Munford				Munford			
Calhoun Cotton Mills, Inc.				Calhoun Cotton Mills, Inc.				Munford Cot. Mill Co.				Munford Cot. Mill Co.			
Lanier Mfg. Co.				Lanier Mfg. Co.				Opelika				Opelika			
Perkins Mill				Perkins Mill				Opelika Mfg. Co.				Opelika Mfg. Co.			
Athens				Athens				Pepperell Mfg. Co.				Pepperell Mfg. Co.			
Wellman Cotton Mill Co.				Wellman Cotton Mill Co.				Opp.				Opp.			
Birmingham				Birmingham				Micolas Cotton Mills				Micolas Cotton Mills			
Avondale Mills				Avondale Mills				Opp Cotton Mills				Opp Cotton Mills			
Boaz				Boaz				Oxford				Oxford			
Enterprise Cotton Mills				Enterprise Cotton Mills				Southern Mills Corp.				Southern Mills Corp.			
Bon Air				Bon Air				Ozark				Ozark			
Danville Knitting Mills				Danville Knitting Mills				Dale Cotton Mills				Dale Cotton Mills			
Cordova				Cordova				Pell City				Pell City			
Indian Head Mill of Ala.				Indian Head Mill of Ala.				Pell City Mfg. Co.				Pell City Mfg. Co.			
Cottondale				Cottondale				Piedmont				Piedmont			
Tuscaloosa Mills				Tuscaloosa Mills				Coosa Mfg. Co.				Coosa Mfg. Co.			
Demopolis				Demopolis				Standard-Coosa-Thatcher Co.				Standard-Coosa-Thatcher Co.			
Enterprise				Enterprise				Pinckard				Pinckard			
Enterprise Cotton Mills				Enterprise Cotton Mills				Pinckard Cot. Mill Co.				Pinckard Cot. Mill Co.			
Eufaula				Eufaula				Prattville				Prattville			
Cowikee Mills				Cowikee Mills				Prattville Cotton Mills				Prattville Cotton Mills			
Glenola Cotton Mills				Glenola Cotton Mills				Riverdale Cotton Mills				Riverdale Cotton Mills			
Fairfax				Fairfax				Handley, W. A. Mfg. Co.				Handley, W. A. Mfg. Co.			
West Point Mfg. Co.				West Point Mfg. Co.				Wehadkee Yarn Mill				Wehadkee Yarn Mill			
Florence				Florence				Selma				Selma			
Ashcraft Cotton Mills				Ashcraft Cotton Mills				Helen Cotton Mills Co.				Helen Cotton Mills Co.			
Cherry Cotton Mills				Cherry Cotton Mills				Valley Creek Cot. Mills Co.				Valley Creek Cot. Mills Co.			
Geneva				Geneva				West Point Mfg. Co.				West Point Mfg. Co.			
Geneva Cotton Mills				Geneva Cotton Mills				Buck Creek Cot. Mills Co.				Buck Creek Cot. Mills Co.			
Huntsville				Huntsville				Speigner				Speigner			
Dallas Mfg. Co.				Dallas Mfg. Co.				Stevenson				Stevenson			
Lowe Mfg. Co.				Lowe Mfg. Co.				Sycamore				Sycamore			
Huntsville Cotton Mills				Huntsville Cotton Mills				Avondale Mills				Avondale Mills			
Merrimack Mfg. Co.				Merrimack Mfg. Co.				Marble City Mills				Marble City Mills			
West Huntsville Cot. Mills				West Huntsville Cot. Mills				Talladega				Talladega			
Abingdon Mills				Abingdon Mills				Talladega Cordage Co.				Talladega Cordage Co.			
Huntsville Knitting Co.				Huntsville Knitting Co.				Chinabee Cotton Mills				Chinabee Cotton Mills			
Jacksonville				Jacksonville				Highland City Mills				Highland City Mills			
Profile Cotton Mills				Profile Cotton Mills				Talladega Cotton Factory				Talladega Cotton Factory			
La Fayette				La Fayette				Tallassee				Tallassee			
La Fayette Cot. Mills, Inc.				La Fayette Cot. Mills, Inc.				Tallassee Falls Mfg. Co.				Tallassee Falls Mfg. Co.			



1911				1926				1911				1926			
Tallapoosa				Columbus				Columbus				Columbus			
Spindles		Looms		Spindles		Looms		Spindles		Looms		Spindles		Looms	
Sanders Cotton Mills	4,000	108						Bibb Mfg. Co.	33,000			Bibb Mfg. Co.	128,000		270
Union Springs															
Union Springs Cot. Mills Co.	5,000			Cowikee Mills	6,048			Columbus Mfg. Co.	50,000	1,350		Columbus Mfg. Co.	63,840	2,872	
Uniontown															
Ellawhite Cotton Mills	10,000			California Cot. Mills Co.	11,024			Eagle & Phenix Mills	59,356	1,616		Eagle & Phenix Mills	65,556	1,874	
Total	975,519	16,913		Total	1,477,860	26,741		Georgia Mfg. Co.	10,000			Georgia Mfg. Co.	8,320		
ARKANSAS															
Monticello															
Monticello Cotton Mill	7,090	164		Monticello Cot. Mills Co.	8,000	150		Meritas Mills	10,000	170		Meritas Mills	57,436	1,360	
Pine Bluff															
Arkansas Textile Co.				10,000											
West Helena															
Premier Cotton Mills	7,000			Delta Land Cot. Mill	11,000			Muscogee Mfg. Co.	27,000	500		Muscogee Mfg. Co.	50,000	814	
Total	14,090	164		Total	29,000	150		Perkins Hosiery Mills	10,000			Perkins Hosiery Mills	12,500		
GEORGIA															
Acworth															
Acworth Cotton Mfg. Co.	5,000			Acworth Mills	6,120			Swift Mfg. Co.	19,000	448		Swift Mfg. Co.	29,112	864	
Albany															
Albany Cotton Mills	11,280	300		Flint River Cot. Mills	22,216	520		Swift Spinning Mills	12,768			Swift Spinning Mills	27,132		
Aragon															
Aragon Mills	18,438	442		Aragon Mills	18,438	242		Hamburger Cotton Mills	9,000	224		Georgia Webbing & Tape Co.	15,000		42
Atco															
American Textile Co.	33,000	802		American Textile Co.	35,000	802		Commerce							
Athens															
Athens Mfg. Co.	12,800			Athens Mfg. Co., The	17,312	25		Harmony Grove Mills	14,768	444		Harmony Grove Mills	15,080	444	
Mallison Braided Cord Co.	2,000	11		Mallison Braided Cord Co.	2,200	12		Covington							
Princeton Mfg. Co.	3,600			Princeton Mfg. Co.	3,600			Covington Mills	18,300	450		Covington Mills	30,000	718	
Southern Mfg. Co.	12,232	404		Southern Mfg. Co.	32,470	700		Crawford							
Star Thread Mill	7,000			Star Thread Mill	8,320			Edwards Mills	5,000			Crawford Cotton Mills	7,000	100	
White City Mfg. Co.	2,500			Bowen-Crews Co.	3,648			Dallas							
Atlanta															
Atlanta Woolen Mills	5,700			Atlanta Woolen Mills	6,500			Paulding Co. Cotton Mfg. Co.	10,140			Liberty Cotton Mills	7,000		
Exposition Cotton Mills	56,000	1,512		Exposition Cotton Mills	60,000	1,572		Dalton							
Fulton Bag & Cot. Mills	100,000	2,500		Fulton Bag & Cot. Mills	100,000	2,500		Crown Cotton Mills	35,000	782		Crown Cotton Mills	50,000	938	
Augusta															
Augusta Factory	36,048	1,004		Augusta Factory	38,992	900		Elk Cotton Mills	7,300			Boyleston-Crown Mills	14,000		
Enterprise Mfg. Co.	35,000	923		Enterprise Mfg. Co.	35,232	1,008		Decatur							
Globe Cotton Mill	4,156	236		Globe Cotton Mills	5,472	234		Georgia Cordage Mills	1,700			American Tread Co. of Ga.	30,000		
King, ohn P. Mfg. Co.	60,384	1,820		King, John P. Mfg. Co.	64,608	1,942		Douglasville							
Nixon Mfg. Co.	4,800	190		Sibley Mfg. Co.	38,688	1,008		Lois Cotton Mills	20,480	500		Beaver Mills	21,760	520	
Sibley Mfg. Co.	43,200	1,409		Sutherland Mfg. Co.	6,840	336		Dublin							
Sutherland Mfg. Co.	10,000														
Banning															
Hutcheson Mfg. Co.	7,500			Banning Cotton Mills	5,300	4		Georgia Cotton Mills	8,112	260		Eastman			
Barnesville															
Aldora Mills	10,000			Aldora Mills	14,000	12		Eastman Cotton Mills	5,200			Eastman Cotton Mills	10,400	270	
Berryton															
Berryton Mills				18,000											
Bremen															
Bremem Looms, Inc.				65											
Calhoun															
Echota Cotton Mills	5876	144		Echota Cotton Mills	16,384	420		East Point							
Canton															
Canton Cotton Mills	20,000	600		Canton Cotton Mills	43,000	1,400		Lullwater Mfg. Co.				Lullwater Mfg. Co.	4,500	146	
Carrollton															
Mandeville Mills	17,936	120		Mandeville Mills	35,218			Eatonton							
Cedartown															
Cedartown Cotton & Export Co.	24,280			Cedartown Cotton & Export Co.	46,124			Imperial Cotton Mill	6,500	150		Imperial Cotton Mills	13,712	328	
Standard Cotton Mills	13,728			Standard Cotton Mills	16,464	108		Putnam Mills & Power Co.	6,156	200		Eatonton Cotton Mills	5,746		
Chattahoochee															
Whittier Mills Co.	15,000			Whittier Mills Co.	15,000			Egan							
Chickamauga															
Crystal Springs Bleachery Co.				23,000 700											
Cochran															
Cochran Cotton Mills Co.	4,032	92		Cochran Cotton Mills Co.	5,000	120		Piedmont Cotton Mills	5,692	116		Piedmont Cotton Mills	7,000	96	
College Park															
Gate City Cotton Mills	15,000			Gate City Cotton Mills	15,000			Elizabeth Cotton Mills	10,000	250		Martel Mills, Inc.	11,220	352	



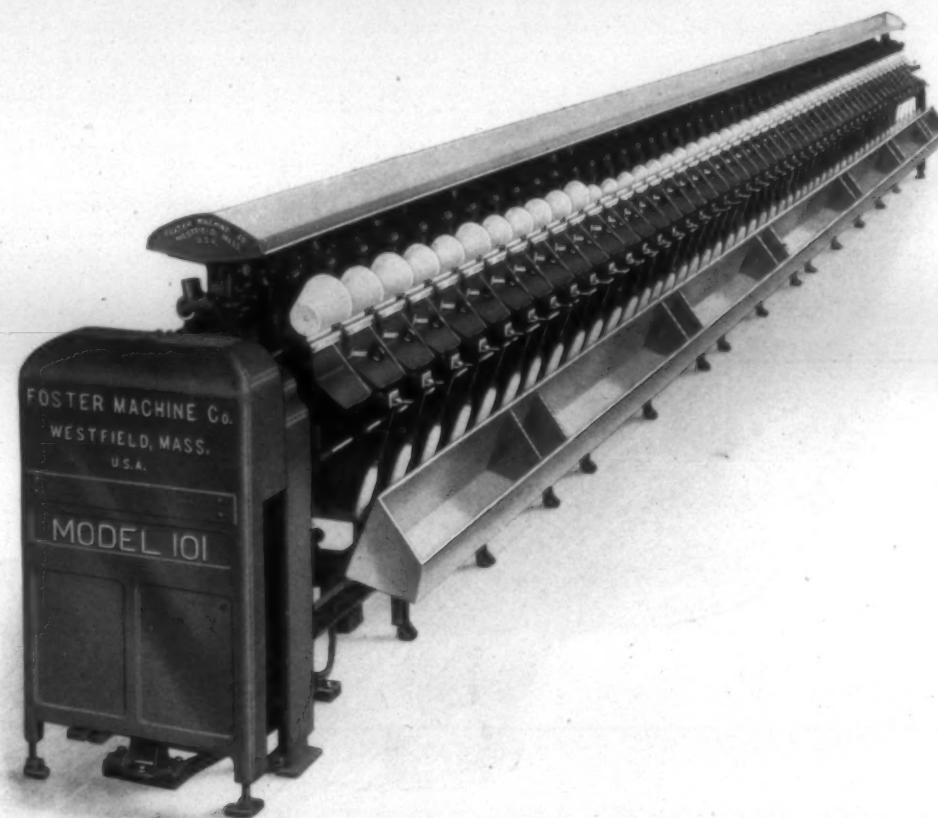
1911				1926				1911				1926			
High Shoals				Spindles Looms				Rome				Spindles Looms			
Spindles Looms				Spindles Looms				Spindles Looms				Spindles Looms			
High Shoals Mfg. Co.	10,000	187	High Shoals Mfg. Co.	9,984		Anchor Duck Mills	14,000	160	Anchor Duck Mills	29,000	399				
						Floyd Cotton Mills	5,000	126	Strain Mfg. Co.	5,000	132				
									McLin Textile Mills		76				
Hogansville								Rossville							
Consolidated Cotton Duck Co.	5,184	67	New Eng.-Sou. Mills	11,332	100	Richmond Hosiery Mills	5,000		Richmond Hosiery Mills	6,000					
			Stark Mills	35,568	121	Peerless Woolen Mills	5,360	208	Peerless Woolen Mills	15,400	209				
Jackson								Roswell							
Pepperton Cotton Mill	13,000	502	Pep. Cotton Mills	13,000	556	Roswell Mfg. Co.	12,160	168	Roswell Mills, Inc.	12,384	120				
Jefferson								Sargent							
Jefferson Cotton Mills	7,000	175	The Jefferson Mills	11,664	256	Wahoo Mfg. Co.	6,000		Arnall Mills	19,000					
Jewell								Savannah							
Bowen-Jewell Co.	6,000	185	Jewell Cotton Mills Co.	6,128	185	Tilton, G. H. & Son	8,144								
Juliette								Scottsdale							
Juliette Milling & Glover Mfg. Co.	3,300		Juliette Milling Co.	4,896		Scottsdale Mills	11,200	350	Scottsdale Mills	11,068	330				
									Ga. Duck & Cordage Mill	2,448	29				
Lafayette								Senoia							
Lafayette Cotton Mills	7,000	260	Lafayette Cotton Mills	9,856	226	Senoia Duck Mills		80							
Union Cotton Mills	18,200	500	Consolidated Tex. Corp.	23,152	462										
La Grange								Social Circle							
Dixie Cotton Mills	20,000	400	The Dixie Cotton Mills	23,926	368	Social Circle Cotton Mills	10,000	350	S. Cir. Cot. Mill Co.	15,168	386				
Dunson Mills	20,000	400	Dunson Mills	42,000	900										
Elm City Cotton Mills	10,368	110	Elm City Cotton Mills	11,664	129										
Park Cotton Mills	1,600	52	Park Cotton Mills	3,328		Sparta Cotton Mill	5,000								
Unity Cotton Mills	10,368	142	Unity Cotton Mills	11,232	122										
Unity Spinning Mills	10,368		Unity Spinning Mills	14,688											
Consolidated Cotton Duck Co.	10,000	100	Hillside Cotton Mills	29,520	646	Summerville Cotton Mills	5,000	130	Summ. Cotton Mills	16,392	372				
			New Eng.-Sou. Mills	9,984	118										
Lavonia								Tallapoosa							
Lavonia Cotton Mills	5,000		Lavonia Cotton Mfg. Co.	8,000		Tallapoosa Mills	10,000		Tallapoosa Mills	16,160					
Lawrenceville								Tennille							
Lawrenceville Mfg. Co.	4,200		Lawrenceville Mills	7,000		Tennille Yarn Mills	4,000		Washington Mfg. Co.	5,800	124				
Lindale								Thomaston							
Massachusetts Mills in Ga.	92,644	3,081	Mass. Cot. Mill (Ga. Mill)	102,016	3,398	Thomaston Cotton Mills	20,000	416	Thom. Cotton Mills	62,880	475				
									Peerless Cotton Mills	25,920	600				
Macon								Thomson							
Bibb Mfg. Co.	31,576		Bibb Mfg. Co.	52,000		Smith, J. E. Cotton Mfg. Co.	10,000	260	Lullwater Mfg. Co.	10,000	192				
Willingham Cotton Mill	10,000	100	Willingham Cot. Mills	10,000	100										
Manchester Mfg. Co.	12,500		Adams Duck Mills	7,000	168										
			Atlantic Cotton Mills	11,908											
Manchester								Tifton							
Manchester Cotton Mills	20,800	580	Manchester Cotton Mills	25,080	713	Tifton Cotton Mills	5,376		Tifton Cotton Mills	7,216					
Marietta								Toccoa							
			Wilnicca Cotton Mills	2,816		Toccoa Cotton Mills	8,000	256	Hartwell Mills No. 2	9,152	284				
						Toccoa Cotton Mills No. 2	4,000		Capps Mfg. Co.	6,240					
Middletown								Trion							
Beverly Cotton Mills	8,500		Beaver Cotton Mills	3,000		Trion Mfg. Co.	51,284	1,440	The Trion Co.	60,960	1,346				
Millen								Union Point							
Millen Mills	5,376		Western Reserve Cotton Mills (Ga. Co.)	5,376	16	Union Mfg. Co.	3,856		Union Mfg. Co.	4,446					
Milledgeville								Valdosta							
Milledgeville Mfg. Co.	10,000	90	Milledgeville Mfg. Co.	11,628	138	Strickland Cotton Mills	12,000	344	Strickland Cot. Mills	13,104	364				
Monroe								Villa Rica							
Monroe Cotton Mills	11,000	530	Monroe Cotton Mills	17,600	370	Villa Rica Cotton Oil Co.	2,500		Villa Rica Cotton Oil Co.	5,000					
Walton Cotton Mills	10,000	316	Walton Cotton Mills	16,528	450										
Moultrie								West Point							
Moultrie Cotton Mills	11,000	280	Moultrie Cotton Mills	11,232	298				(See Lanett, Langdale, Riverview, Fairfax and Shawmut, Ala.)						
New Holland								Whitehall							
Pacolet Mfg. Co.	54,444	1,765	Pacolet Mfg. Co. No. 4	60,148	1,940	Georgia Mfg. Co.	12,000		Ga. Mfg. Co.	12,000					
						Whitehall Yarn Mill	5,000		Whitehall Yarn Mill	5,000					
Newnan								Winder							
McIntosh Mills	10,000		McIntosh Mills	12,000		Winder Cotton Mills	9,876	320	Barrow Co. Cotton Mills		144				
Newnan Cotton Mills	40,000		Newnan Cotton Mills	60,000											
Palmetto								Woodstock							
Palmetto Cotton Mills	6,500	140	Palmetto Cot. Mills, Inc.	7,024	172	Little River Mills	2,000		Little River Mills	1,500					
Pelham								Total							
Pelham Mfg. Co.	12,000	300	Consolidated Tex. Corp.	12,128	360		2,030,594	40,864		2,937,330	53,041				
Potterdale								KENTUCKY							
Bibb Mfg. Co.	22,000		Bibb Mfg. Co.	76,000	100	Argonaut Cotton Mill Co.	4,864								
Potterville								Covington							
Bibb Mfg. Co.	2,240					Grahamton Mfg. Co.	4,000	125	Grahamton Mfg. Co.	3,500					
Poulan								Henderson							
Poulan Cotton Mills	5,700	186	Poulan Cotton Mills	6,032	186	Henderson Cotton Mills	47,924	1,312	Consolidated Tex. Corp.	49,504	1,376				
Quitman								Louisville							
Atlantic & Gulf Mills	10,000		Western Reserve Cot. Mill	10,008	24	Louisville Cotton Mill Co.	29,088		Louisville Cot. Mills Co.	29,088					
Reynolds															
Bibb Mfg. Co.	2,340		Bibb Mfg. Co.	3,600		Louisville Girth & Blanket Mills	880	8	Louisville Textile Co.	1,536	60				
						Puritan Cordage Mills	2,500		Seiple Mfg. Co.	3,000	8				

(Continued on Page 59)

(Continued on Page 59)



# Model 101



## The New High Speed FOSTER WINDER

*For Cones, Tubes, Cheeses, Cotton or Worsted*

Note this comparison with older Models—

Average yarn winding speed per min.	400-600 yds.
Saving in H. P. per Lb. of Yarn	56 Per Cent
Saving in Floor Space	59 Per Cent
Saving in Investment	48 Per Cent

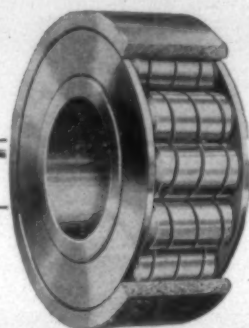
These figures are from actual Mill results and can be duplicated in any Mill.

The Model 101 will be shown in operation in our space at the Knitting Arts Exhibition, Philadelphia, Pa., March 22nd to 26th.

### FOSTER MACHINE COMPANY

Westfield, Mass.





## A little part doing a big job

**B**EARINGS are a small but important part of your manufacturing equipment.

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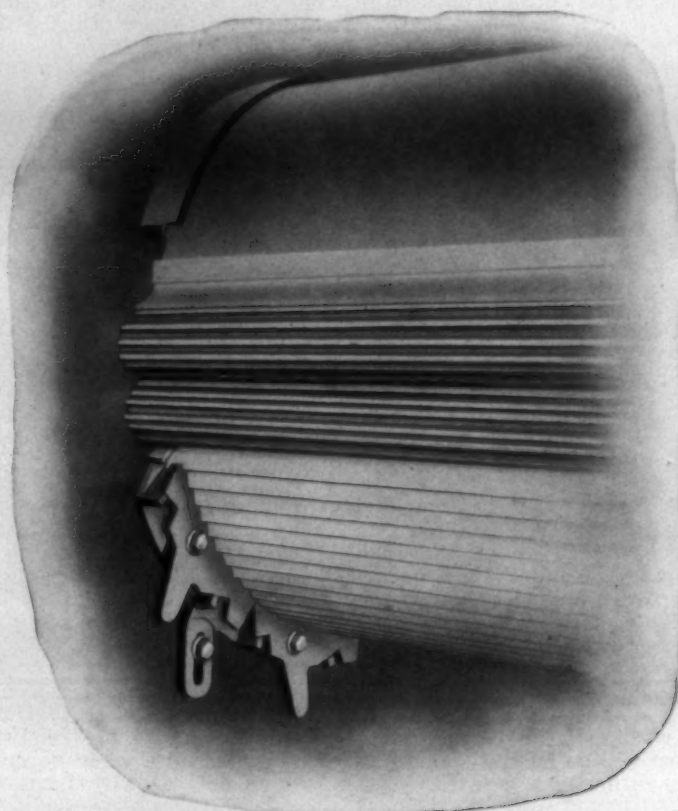
( Bulletin No. 2100 contains the interesting  
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## The Development of Textile Manufacturing in Texas

THE history of Texas textile manufacturing, by which is meant the manufacture of cotton goods, for there are no woolen mills in the State, is not a record of meteor-like performance. Neither has there been a rush from other parts of the nation to build cotton mills in Texas. On the contrary, the textile development of Texas has been a matter of a slow growth extended over a long period of years. The manufacture of cotton goods in Texas is just in its infancy.

### Texas in the Past.

The underlying reasons for this situation vary, but the great distance of Texas from the textile centers of the country may be regarded as the principal cause. Then too, during the period in which many of the textile manufacturers of New England removed to the Southeast, the State of Texas was very sparsely settled. There were no great manufacturing centers, there was little, if any, concentration of population, transportation conditions were more or less unfavorable and, considering the vast distances involved, the railroad mileage was meagre.

While, even in those days, a large percentage of the nation's cotton was raised in Texas and shipped to the New England mills as well as abroad, the production of the raw material was practically the only advantage to which the State could lay just claim, and this was of little consequence at that time. In other words, Texas' only real bid for cotton mills was the fact that it produced an abundance of raw material. Other economic factors such as population, purchasing power, trade territory, transportation facilities and labor supply were very unsatisfactory.

As S. M. Ransonher, president of the Planters and Merchants Mills of New Braunfels, Texas, puts it:

"The development of Texas may be roughly divided into three important periods. These periods are not definitely defined, but gradually merge into each other. They are: 'The cattle period, during which cattle raising was the principal business of the State;

'The agricultural period. Our present day is in this period, with cotton, grain, fruit and vegetable raising the principal occupations;

'The industrial period. We are just getting into this period, but shortly manufacturing will come to the forefront, and will eventually surge ahead of agriculture."

Thus we find that while the cotton mills were slow to establish in Texas because the conditions surrounding the industry were known to be discouraging, these very conditions were improving rapidly.

### Texas at the Present.

Since 1880 the population of the State has increased over 300 per cent as compared with 240 for the United States as a whole. From the standpoint of concentration of population there has been a marked improvement, there having been three distinct areas of the State

By E. H. Brown, Assistant Industrial Manager, Dallas Chamber of Commerce, Dallas, Texas.

affected. These are the south central section surrounding San Antonio, the southeastern section centering about Houston and Galveston, and an extremely important increase in the northeastern section centering at Dallas and Fort Worth. In fact, in the northeastern section of the State may be found over 60 per cent of the entire population of Texas.

During this same period Texas witnessed a remarkable activity in railroad building. Since 1880 the railroad mileage of Texas has in-

creased 396 per cent as compared with 185.8 per cent for the entire nation. Today there are more than 16,000 miles of railroads in operation in Texas, far more than in any other State of the Union. In addition, several Texas lines have applied to the Interstate Commerce Commission for permission to construct a total of over 1,000 additional miles within the State and construction will go forward rapidly as soon as authority is granted.

As might be expected, the railroads to a great extent followed the development of population with the result that the greatest mileage of railroad is found today in the same sections of Texas which received the benefits of increased population, and in very nearly the same ratio. An exceedingly important development in Texas is the increased value of property. During the period 1900 to 1922 there has been an increase in the assessed value of taxable property of nearly 100 per cent, the total valuation in 1922

reaching more than \$7,000,000,000. This augurs a tremendous buying power. M. W. Mosheim, manager of the Texas Cotton Mill Company of McKinney, Texas, which was recently taken over by the C. R. Miller Manufacturing Company of Dallas, stresses the value of cotton mills being located in close proximity to both a producing area and a consuming territory when he says: "I do not see why Texas should

not be the future great cotton mill center. It has every advantage. Cotton may be secured at the lowest possible price, for the reason that the manufacturers would not have to pay heavy freight rates. The cotton would be at the very doors of the mills. And then, too, there is Mexico and the great southwestern territory in which they could dispose of their goods, the fastest growing section of the nation. Near at hand, also, is the port of Galveston through which their goods could be shipped to South American countries."

But, despite the vast increases in wealth and buying power, the greatly improved transportation facilities, and the remarkable influx of population (which, from the manufacturer's standpoint, vitally affects labor conditions) there has not been the anticipated tendency on the part of textile manufacturers to take advantage of the bettered situation.

It would appear that the great distance of Texas from the previously established textile manufacturing sections of the United States still influences the development of the industry in Texas. The result is that Texas offers an almost virgin field for textile manufacturing plants, both cotton and wool, and the leaders in the industry in Texas believe that, in the immediate future, there will be witnessed a tremendous increase in cotton manufacturing.

Nor is this belief confined to Texas operators. In 1923, when the Dallas Textile Mills Company was organized, M. L. Cannon, of Concord, North Carolina, head of the Cannon interests which own and operate a chain of cotton mills in the South, stated:

"I am very happy to have a part in what I believe will be the beginning of widespread development of the cotton mill industry in Texas."

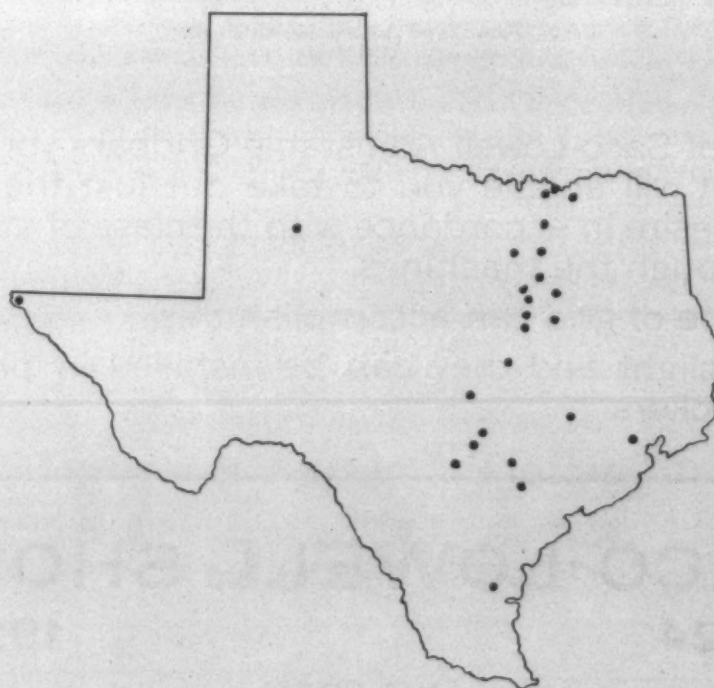
A. W. McClellan, president of the Alden Mills of New Orleans, again emphasizes the future importance of Texas in cotton manufacturing. He says: "It is my belief that there is no limit to what Texas may do in the way of textile manufacturing. Texas is in the public eye among textile men because of its satisfactory labor conditions, its abundance of raw materials, the capital available there, its unbounded credit, its accessibility to the markets through the gateway cities of the Middle West, the East and the West, and because of its good transportation facilities."

### Increase of Texas Cotton Mills.

At the present time there are 28 cotton mills in the State. This is exclusive of hosiery mills, bleacheries and similar plants not actually manufacturing cloth. To a great extent, except when influenced by other economic conditions, these mills have also followed the development of population. The accompanying map shows the Texas cities in which may be found cotton mills (Continued on Page 92)



Planters and Merchants Mills, New Braunfels, Texas.



Location of Texas Textile Manufacturers



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# Growth of Knitting Mills 1911-1926

The growth of knitting mills in the South from 1911 to 1926 has exceeded any other form of textile manufacturing. The tabulation below shows the growth of individual knitting mills as well as the growth of knitting in towns and States.

ALABAMA					
Name of Mill	1911	No. of Machines	Name of Mill	1926	No. of Machines
Albany					
			Albany Hosiery Mills		120
Alexander City					
Russell Mfg. Co.	40		Russell Mfg. Co.		101
Anniston					
Anniston Knitting Mills Co.	28		Anniston Hosiery Mills		275
			Avalon Knitwear Co.		20
Ashland					
			Ashland Knitting Co.		49
Attalla					
			Attalla Hosiery Mills (W. B. Davis & Son)		75
Bridgeport					
			United Hosiery Mill Corp.		156
Eufaula					
			Gloria Underwear Mills		45
Fort Payne					
Davis Hosiery Mills	100		W. B. Davis & Son		320
Gadsden					
			Davis & Allcott Co.		100
Huntsville					
Huntsville Knitting Co.	38		Aycock Hosiery Mills		190
			Erwin Mfg. Co.		16
Scottsboro					
			Scottsboro Hosiery Mills		200
Talladega					
Talladega Hosiery Mills	46				
Tuscaloosa					
Rosenau Hosiery Mills	190		Kyle Hosiery Mills		110
Total	432		Total		1,687
ARKANSAS					
Pine Bluff					
			Arkansas Textile Co.		80
			Total		80
GEORGIA					
Acworth					
			B. H. Merck Hosiery Mills		88
Athens					
Climax Hosiery Mills	116		Climax Hosiery Mills		258
Atlanta					
Atlanta Hosiery Mills	108		Atlanta Hosiery Mills		180
Banning					
Hutcheson Mfg. Co.	26				
Barnesville					
Gem Knitting Mills	72		The William Carter Co.		100
Georgia Underwear Co., Inc.	42				
Oxford Knitting Mills	60				
Berryton					
The Berryton Mills	100				
Carrollton					
			The Carroll Mills		10
			Fuller Hosiery Mills		20
Cartersville					
			The Cartersville Mills, Inc.		38
Cedartown					
Cedartown Knitting Co.	125		Barnes Knitting Mills		60

Name of Mill	1911	No. of Machines	Name of Mill	1926	No. of Machines
<b>Columbus</b>					
Georgia Mfg. Co.	240		Georgia Mfg. Co.		275
Massey Hosiery Mills	275		Mitchell Hosiery Mills		100
Perkins Hosiery Mills	300		Perkins Hosiery Mills		706
<b>Dallas</b>					
Dallas Hosiery Mill	110		Dallas Hosiery Mill		175
<b>Dalton</b>					
			Dalton Hosiery Mills		140
<b>Douglasville</b>					
Douglasville Knitting Mills	38		Douglas Hosiery Mills		280
<b>Elberton</b>					
			Colley Mfg. Co.		30
<b>Forsyth</b>					
			Forsyth Hosiery Mills		49
<b>Fort Valley</b>					
Fort Valley Knitting Mills	43		Ft. Valley Knitting Mills		60
<b>Grantville</b>					
Grantville Hosiery Mills	150		Grantville Hosiery Mills		200
<b>Griffin</b>					
			Griffin Hosiery Mills		261
			Spaulding Knitting Mills		129
<b>Hampton</b>					
Henderson Mfg. Co.	32		Ensign Cotton Mills		21
<b>Jonesboro</b>					
			Jonesboro Mfg. Co.		57
<b>LaFayette</b>					
Walker County Hosiery Mills	187		Walker County Hosiery Mills		360
<b>Macon</b>					
Bibb Mfg. Co.	350		Bibb Knitting Mills		200
Central City Hosiery Mfg. Co.	36		The William Carter Co.		40
Southland Knitting Mills	42		Southland Knitting Mills		52
<b>Marietta</b>					
Marietta Knitting Co.	119		Marietta Knitting Co.		265
			Browning Hosiery Mills		60
<b>Montezuma</b>					
Montezuma Mfg. Co.	30		Montezuma Knitting Mills, Inc.		30
<b>Moreland</b>					
			Moreland Hosiery Mills		50
<b>Newnan</b>					
			Newnan Hosiery Mills		110
<b>Penfield</b>					
Penfield Hosiery Mill	155				
<b>Rome</b>					
Cherokee Hosiery Mill	125		Cherokee Hosiery Mills		285
Rome Hosiery Mills	175		Rome Hosiery Mills		620
			Chester Knitting Mills		150
<b>Rossville</b>					
Richmond Hosiery Mills	350		Richmond Hosiery Mills		600
<b>Savannah</b>					
Tilton, G. H. & Son	25				
<b>Union Point</b>					
Union Mfg. Co.	183		Union Mfg. Co.		500
<b>Villa Rica</b>					
			Villa Rica Hosiery Mills, Inc.		114
Total	3,614		Total		6,613
<b>KENTUCKY</b>					
<b>Louisville</b>					
			Swiss Hosiery Mills		126
<b>Middleboro</b>					
Middleboro Knitting Mills	16				
<b>Paducah</b>					
			Claussner Hosiery Co.		23
			Paducah Hosiery Mills, Inc.		108
			Priester Mills		225





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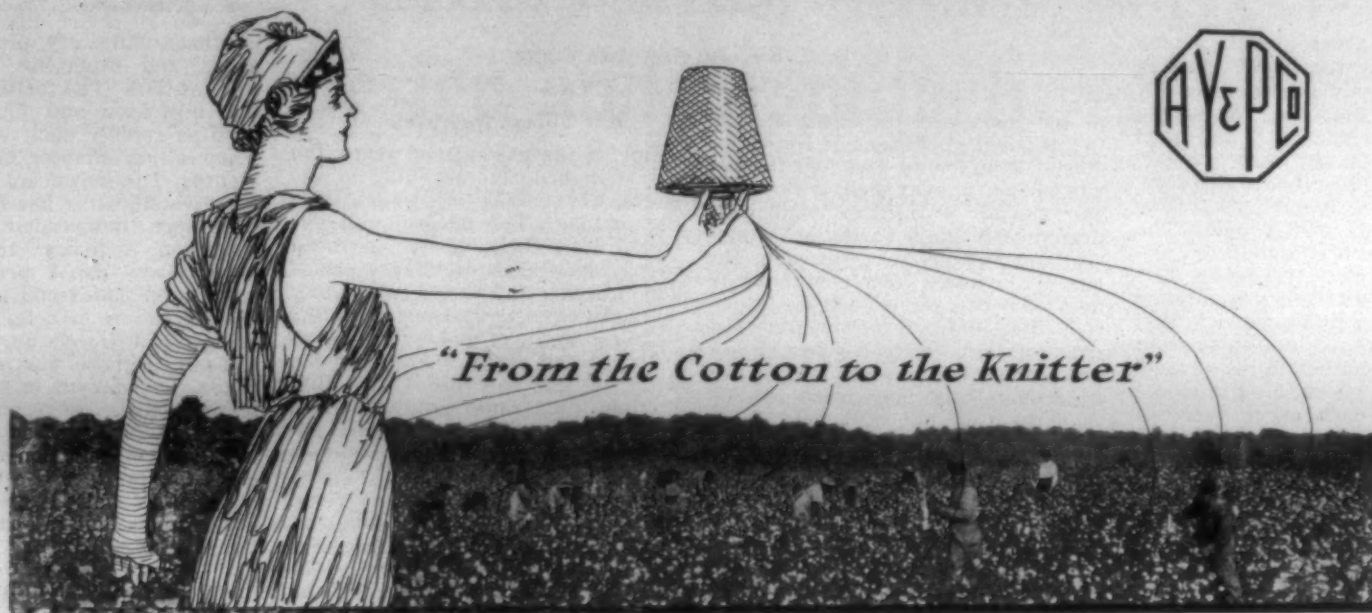
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Name of Mill	1911	No. of Machines	Name of Mill	1926	No. of Machines	Name of Mill	1911	No. of Machines	Name of Mill	1926	No. of Machines
<b>Princeton</b>						<b>Creedmoor</b>					
			Princeton Hosiery Mill	150		Standard Hosiery Mills Co.	20		Granville Hosiery Mill	90	
			Williamburg						Drexel		
			Campbell Knitting Mills	100		Drexel Knitting Mill	30		Drexel Knitting Mills Co.	225	
Total		16	Total	732							
<b>LOUISIANA</b>						<b>Durham</b>					
<b>Coushatta</b>						Chatham Knitting Mills Co.	90		Chatham Knitting Mills Co.	240	
			Marion-Pelican Hosiery Mill	30		Durham Hosiery Mills, Inc.	1,000		Durham Hosiery Mills (Nos. 1, 2 and 6)	1,264	
<b>New Orleans</b>						Durham Textile Mills	12		Golden Belt Mfg. Co.	252	
Alden Mills	300		Alden Mills	500					North State Knitting Co.	644	
National Hosiery Mills	22		National Hosiery Mills	116					O'Daniel, John, Hosiery Co.	350	
			Floradel Knitting Mills, Inc.	73					Ruth Hosiery Mills	80	
Total	322		Total	719		<b>Durham (E)</b>					
<b>MISSISSIPPI</b>						Banner Hosiery Mills			91		
<b>Meridian</b>						Knit-Well Hosiery Mill, Inc.			152		
Priscilla Mills, The	100		Alden Mills	400		Louise Knitting Mills Co.			200		
Total	100		Total	400		<b>Durham (W)</b>					
<b>NORTH CAROLINA</b>						Tar Heel Hosiery Mills Co.			227		
<b>Albemarle</b>						<b>East Flat Rock</b>					
Lillian Knitting Mills Co.	150		Lillian Knitting Mills	275		Chipman-Burrowes Hos. Mills Co.			330		
Wiscasset Mills Co.	500		Wiscasset Mills Co.	300		<b>Efland</b>					
<b>Apex</b>						Efland Hosiery Mills			37		
Apex Knitting Mills	75					<b>Elizabeth City</b>					
<b>Asheboro</b>						Elizabeth City Hosiery Co.	143		Elizabeth City Hosiery Co.	323	
Acme Hosiery Mills	80		Acme Hosiery Mills, Inc.	600		Pasquotank Hosiery Co.			103		
			Asheboro Hosiery Mills	238		Standard Mfg. Co.			57		
			Park Hosiery Mills	84		<b>Ellerbe</b>					
<b>Asheville</b>						Ellerbe Knitting Mills			170		
Asheville Knitting Mills	150					<b>Elon College</b>					
<b>Atkinson</b>						Swannie-Noah Hosiery Mfg. Co.	8				
Atkinson Hosiery Mills Co.	51					<b>Enfield</b>					
<b>Beaufort</b>						Enfield Hosiery Mills Co.	182		Enfield Hosiery Mills Co.	200	
Kinston Knitting Co.	60					<b>Fiat Rock</b>					
<b>Boiling Springs</b>						Skyland Hosiery Co.	200				
Winner Hosiery Mill Co.	103					<b>Forest City</b>					
<b>Boone</b>						Dixie Knitting Mills	11		Forest City Hosiery Co.	156	
Boone Knitting Mills	40					<b>Gibsonville</b>					
<b>Burlington</b>						Gibsonville Hosiery Mills Co.			135		
Burlington Hosiery Mills Co.	80		Alamance Hosiery Mills	102		<b>Glen Alpine</b>					
Daisy Hosiery Mills	79		Burke, G. A., Silk Co.	25		Glen Alpine Knitting Mill			60		
Midway Improvement Co.	97		Brown's Hosiery Mill	90		<b>Goldsboro</b>					
Sellers Hosiery Mills	60		Sellers Hosiery Mills, The	225		Durham Hosiery Mills Co., Inc., No. 5	64		Durham Hosiery Mills (No. 5)	416	
Whitehead Hosiery Mills, Inc.	96		Whitehead Hosiery Mills, Inc.	250		<b>Graham</b>					
			Gant, Edwin H., Textile Works	32		Graham Hosiery Mill Co.	20				
			Graham Hosiery Mills	70		<b>Greenville</b>					
			Keystone Finishing Mill	70		Commercial Knitting Mills	12		Greenville Knitting Mills	50	
			Liberty Hosiery Mill	50		<b>Haw River</b>					
			Love Knitting Co.	104		Regina Hosiery Mfg. Co.	50		Childrey Hosiery Mills	32	
			May Hosiery Mills, Inc.	182		Riverside Hosiery Mills, Inc.			60		
			McEwan Knitting Co.	101		<b>Hendersonville</b>					
			Mohawk Hosiery Mills, Inc.	50		Freeze-Bacon Hosiery Mills			98		
			National Hosiery Mills	50		Grey Hosiery Mills			201		
			Standard Hosiery Mills	100		Harkins-Hammack-Whitlock Co.			20		
			Victory Hosiery Mills	46		<b>Hickory</b>					
<b>Cameron</b>						Elliott Knitting Mills	12		Elliott Knitting Mills, Inc.	500	
Regal Hosiery Mills Co.	16					Hickory Hosiery Mills, Inc.	65		Hickory Hosiery Mills, Inc.	200	
<b>Canton</b>						Best Hosiery Mills, Inc., The			141		
			Crescent Mfg. Co., Inc.	69		Setz-Right Hosiery Mills			50		
<b>Carthage</b>						<b>High Point</b>					
Bismark Hosiery Mills	40		Bismark Hosiery Mills	66		Durham Hosiery Mills, Inc., No. 3	100		Durham Hosiery Mills (No. 3)	472	
<b>Chapel Hill</b>						High Point Hosiery Mills, Inc.	411		High Point Hosiery Mills	500	
Durham Hosiery Mills No. 4	50		Durham Hosiery Mills, Nos. 4 and 7	58		Piedmont Mills	240		Piedmont Mills Co.	600	
Thelma Knitting Mill	42					Amos Hosiery Mills Co.			175		
<b>Charlotte</b>						Commonwealth Hosiery Mills			128		
Charlotte Knitting Co.	207					Crown Hosiery Mills			340		
Nebel Knitting Co.	19					Guilford Hosiery Mills, Inc.			60		
<b>Cherryville</b>						Harris & Covington Hosiery Mills			227		
Josephine Knitting Mills	30					Melrose Hosiery Mills			181		
<b>Claremont</b>						Pointer Hosiery Co.			150		
Claremont Hosiery Mills	40					Robbins Knitting Co.			125		
<b>Concord</b>						Royal Hosiery Mills			64		
Concord Knitting Co.	120					Slane Hosiery Mills			230		
Hoover Hosiery Co.	10					<b>Hildebran</b>					
<b>Connelly Springs</b>						Cline, J. A. & Son			100		
Berry Hosiery Mills	24					<b>Holly Springs</b>					
<b>Coolemeec</b>						Crystal Hosiery Mills			76		
North Carolina Hosiery Co.	30					<b>(Continued on Page 118)</b>					





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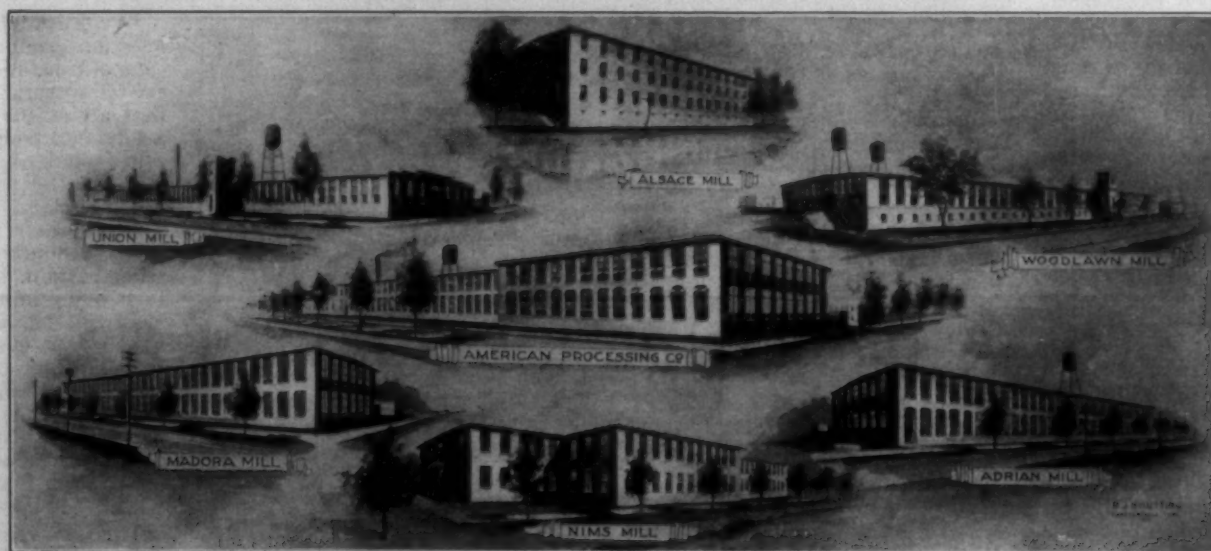
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# Random Observations—1911 to 1926

By D. H. Hill, Jr., Associate Editor.

**A**MONG the great manufacturing industries of the world, no other is quite so closely interwoven with the every-day life of all the people as the textile industry. No other industry affects so many people, both within and without its ranks. Nor is any other business so greatly affected by all the people. The products of the textile mills are intimately associated with man's welfare and comfort from his infancy through his declining years. Man is literally wrapped in textiles from his swaddling clothes to his shroud.

Thus, by virtue of being in closer daily contact with every form of human endeavor, the textile industry is more vitally concerned than any other industry with the progress, the habits, the manners and customs, the most vital needs and the most trivial fancies of men and women in all walks of life. In the final analysis, the success of the textile industry depends upon pleasing more of the people more of the time than upon any other single factor. I sometimes think that if this thought were borne constantly in mind by everyone who has even the remotest connection with the production of textiles that the inspiration thus gained—for there is inspiration in the thought—would lift the industry to a new plane of endeavor in the eyes of those who are too prone to regard it merely as a means of livelihood. The whirl of the spindles and the clackety-clack of the looms may seem as dull and prosaic things, but in them is romance.

The textile industry, being the most human of all industries, is the most interesting. Therefore the opportunity of keeping in close touch with the remarkable development of the Southern mills from 1911 to 1926 has not only been interesting, but exceedingly worthwhile. Many changes have taken place within that time. Most of them have come about so gradually that it is difficult to realize just how far the mills and the men in the mills have advanced during those years. The mere statement of the increase in spindleage and looms in Southern mills since 1911 hardly tells the story. Such a statement gives a clear index to the physical expansion of the industry, but it fails to account for the many other changes in the industry. Those changes, internal rather than external in character, by their very nature, had they not come, would have made impossible the great growth in mill buildings and equipment.

It is the purpose of this article to touch briefly upon some of the influences that have affected Southern textile development during the past fifteen years rather than to outline the actual physical development.

## Superintendents and Overseers.

It seems to me that among the most important and most significant developments in this period is the change in the character of the superintendents and overseers. A truly remarkable change has come about

in the men who are charged with the efficient operations of the spindles and the looms. The "old timer," whose one thought seemed centered on "getting production" and who preferred to hunt a new job rather than keep up his own, has gone. He has given away to a new type of man who can see a good deal further than the row of machines in front of him. Fifteen years ago is not so long that a great many of the superintendents and overseers of that time do not still hold their places. But even these men have changed, changed more than most of them realize. They are interested in something more than "good running work." They are concerned with their ability to successfully compete with the quality production of the mills of the world, with economical and efficient operation, with better living conditions and educational advantages for themselves and the people who work under them. They are more ready to help each other, to pool their knowledge for the common good. And in changing so, they have not only been an inspiration to the younger men who have more recently risen from the ranks, but have also rendered an immeasurable service to their industry.

The early meetings of the Southern Textile Association, as I recall them, were rather stiff and formal. Programs consisted of a few technical addresses that rarely presented more than the most hackneyed information. Those who attended came mainly to meet their friends. With the introduction, however, of the open discussion feature, wherein a man might help his fellow worker and in turn receive help in meeting his technical problems, the real purpose of the Association began to be apparent. The work that the Southern Textile Association is doing now, and I believe it constitutes what is perhaps the most important research in textiles in this country, reflects the real character of the superintendents and overseers. They are men of service. They are serving not only their mills, but their industry as a whole. I honestly believe that if the executives of the Southern mills were as ready to convene in open meeting for the same frank and helpful interchange of opinion that marks the meetings of their superintendents and overseers, that there would be a great deal less red ink on some of the mill ledgers.

The superintendents and overseers of Southern mills have kept pace with the growth of the mills. Largely by their own initiative and ambition they have risen to meet the needs of an industry that has often suffered from growing pains. They are today more capable and more efficient, because they are really interested in their work, than the men who occupy similar positions in any industry anywhere.

## Mill Village Improvement.

During the past fifteen years, the old fashioned "factory hill" in the South has completely faded from the picture. The modern mill villages, with their vastly improved living conditions, excellent schools and churches and varied community activities are far removed from the scattered group of make-shift homes that huddled about so many of the early mills. In the years that brought such rapid growth in mill buildings, the mill owners have not failed to see that their employees were provided with a better opportunity to enjoy their work and lives. Just as modern buildings, equipment and manufacturing methods have taken their place in Southern mills, so have the living conditions of the operatives been improved. Every feature that can be incorporated in the improvement of industrial conditions have been adopted by the mill owners. It is to their everlasting credit that in the changing period brought about by rapid expansion they have been careful to see that the workers received advantages in keeping with the newer order of things in the industry.

It must be borne in mind that with few exceptions, the operatives of today are the superintendents and overseers of tomorrow. The younger men in the mills now who will fill the more important positions later, by reason of greater educational and other advantages, are being better equipped for future responsibility than were their predecessors. This condition will be a material factor in insuring the continued efficiency of mill operations.

## Making Fine Goods.

Shortly after I began to study closely the textile development of the country, I was given to understand that as far as the character of output was concerned, the mills of the South and of New England were sharply divided. The Southern mills made coarse yarns and goods, the New England mills made the finer constructions. It seemed to be the generally accepted opinion not so many years ago that this condition was permanent. Even in the South it was largely believed that the mills would always remain content to make only the coarser goods. New England said the South could not produce fine goods. The South, which at that time was learning a good many valuable manufacturing lessons from New England, believed it. When a New England mill on coarse goods began to squirm under Southern competition, it was advised to change to fine goods and live easy. That was about the situation.

The South's entry into fine goods production has today wiped out the old-fashioned notion that it cannot produce fine and fancy goods that are equal to the best that come out of New England. More and more

Southern mills are producing fine goods and otherwise diversifying their output. The facilities for dyeing, bleaching and finishing have been so rapidly enlarged that they make a new chapter in our textile records. The movement toward textile diversification has resulted in a far more independent and self-contained industry than anyone would have dared predict a few years ago. The trend in this direction is shown in detail in another article in this section. All in all, I doubt if there has been another single development in the Southern textile industry in recent years that is as important and as far-reaching as this demonstration of ability to make fine fabrics. It seems not only destined to make textile history in this country, but to change the textile map as well.

## "Move South."

Within the past fifteen years, a fair number of large New England mills have either built or purchased plants in the South. For many years, this tendency to drift South attracted no undue attention. More recently, however, when this movement began to speed up, it attracted national attention. Word went out from New England that the mills there had reached the point where they must go South, or go to the scrap heap. There followed a prolonged discussion of the relative advantages of the two sections for cotton manufacturing purposes. In the meantime, more of the mills came South. New England became visibly agitated over the situation, though the agitation was undoubtedly overemphasized by newspaper talk. Anyway, the Southern mills were centered in the spotlight of national attention and received a great deal of publicity.

New England mills have without question suffered from Southern competition, and will continue to do so. However, it is hard to believe that all of the mills there will be loaded into freight cars for a wholesale exodus to the South. Southern mill men do not think that all the New England manufacturers will sacrifice their home investments in favor of Southern locations. It does seem certain, however, that in future years, important textile expansion will be limited to the South, which will eventually become the textile center of the country. More of the New England mills are coming South. A good many of them are making plans to do so now, and already the South has some of the best known New England companies within her borders.

This "move South" agitation has been a very interesting development and will continue so. Southern States have a good many advantages that New England will never have, the most important being the vastly better labor conditions. There is every reason to believe that the South will continue its textile development until it surpasses that of

(Continued on Page 106)



## Repeat Orders Must Mean Correct Design and Manufacture

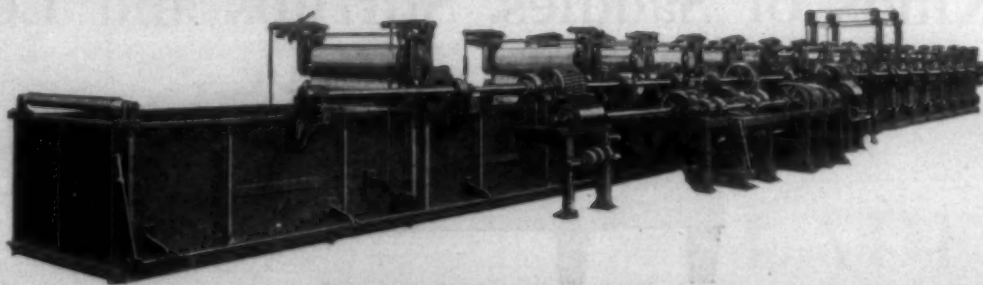
The illustration below shows one of the Standard-Coosa-Thatcher Company's plants in which we recently installed one of our latest type Warp Mercerizing Machines together with Boiling-out Machine, Winders, Folders, and Coilers.

Their reputation for quality work is well known throughout the trade both as to quality of yarn and quality of mercerization.



This Company has just placed with us a repeat order for a duplicate Warp Mercerizing Machine and other equipment.

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## A Decade of Dye Manufacturing Development in America

By Dr. Charles H. Herty

President Organic Chemical Manufacturers' Association of the U. S.

TEN years ago while a member of the faculty of the University of North Carolina, I was elected president of the American Chemical Society, and in that capacity was brought into close touch with the various economic problems which were suddenly thrust upon this country by the developments of the European war.

The most outstanding of these problems was the acute distress on all the textile mills of the country as to supplies of dyestuffs, which up to that time had been secured entirely from Germany.

Smarting under the economic dependence, I gave a series of addresses to the chemists in the various parts of New York State urging the development of an American dye industry which would forever guarantee the independence of our textile mills. At that time even the chemists were exceedingly skeptical that it would be possible to bring about any such industrial miracle. However, during the decade which has elapsed the American industry has been developed to an extent that even the most optimistic of us never dreamed of.

As a result of the stimulation of manufacture of by-products in the coking of coal, due to the war time demand for raw material for high explosives, we now have such an abundance of material that the entire need of our dye industry is

supplied by only three per cent of the total production of crudes. This gives us practically an unlimited source of raw material. The use of the remaining 97 per cent for internal combustion engines means that the automobile requirements determine the price of the raw material of the dye industry.

Fortunately, Congress responded readily to the suggestion that the original rate of protection on intermediates, one-half that of the finished products, should be raised as nearly as possible to equality with that of the finished products. It is impossible to overestimate the importance of that economic measure, for it insured a domestic industry of intermediates, which are made directly from the crudes and, though not coloring materials in themselves, nevertheless furnish the immediate step not only to dyes but to synthetic medicinals, photographic materials, war gases, aromatics, flavors, tanning materials, etc. Without the intermediate industry we would have reverted to the pre-war conditions which had no semblance of economic independence.

With this intermediate industry assured it was a simple matter to go on to a well rounded, diversified

list of finished dyes, though much experimental work was necessary in order to get efficient yields and qualities corresponding to those needed by the textile manufacturers.

I do not hesitate to say in the matter of quality that the work of the American chemist and chemical manufacturer has been thoroughly successful, for I have received numerous communications from the largest consumers of dyes in the country stating that the quality of American dyes today is fully up to pre-war standards in general and in many cases far exceeds that of the original German types.

The trend of prices during this decade of development has amply confirmed the statements made by those of us who were pleading for this industry in the early stages of development. It was confidently predicted has been carried out. If once was gained in manufacture, as yields were bettered, prices would steadily fall. Every consumer of dyes knows how accurately that prediction has been carried out. If we take into consideration the fact that the pre-war dollar had the same purchasing power as \$1.60 today, official statistics show that the average price of dyes today is lower

than it was in 1914. As to quantity, it is of interest that the American industry has been able to supply 95 per cent of domestic consumption and at the same time export some 25,000,000 pounds during the year 1925. As a matter of fact, if consumptive demands justified it this output from existing plants could be practically doubled, without any further investments. Consumers therefore need not worry about any possible shortage of dyes.

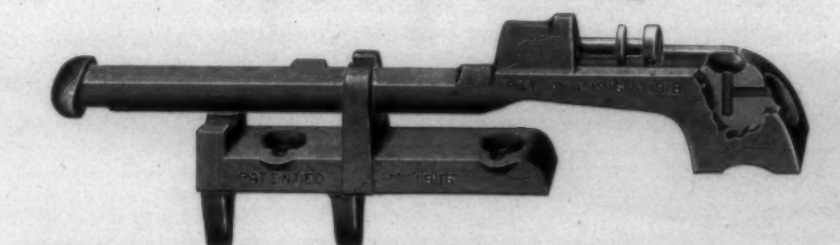
The president of the Master Dyers' Association stated more than a year ago that if this country were completely shut off from foreign ports every dyestuff requirement of the country could be easily met by the domestic industry.

The question naturally arises, therefore, why is the home industry supplying only 95 per cent of the domestic needs. My answer to that is perfectly simple. It is largely because of the matter of graft in the sale of dyes. If that corrupt condition could be immediately wiped out I am confident that our industry would be supplying at least 99 per cent of our needs. I am happy to say that our association has gone strongly on record against such practices, that we are heartily backing the commercial anti-bribery bills now before Congress, and are seeking to aid every move which will tend to eliminate

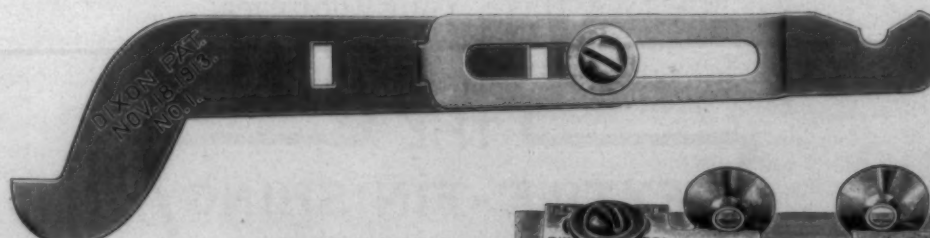
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### Manufacturers of All Kinds of Saddles, Stirrups and Levers

All weight can be removed from middle roll in case of mixed or long staple cotton.

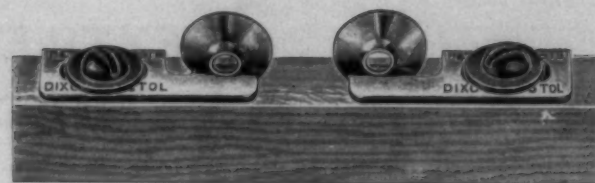


From No. 5 to No. 150 can be spun with this combination of saddles.



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**Dixon Lubricating Saddle Company, Bristol, R. I.**



## Important Developments in Preparatory Machines

By the H. & B. American Machine Company

SOON after the Southern Textile Bulletin was established the Howard & Bullough American Machine Co., Ltd., changed their name to H. & B. American Machine Company and enlarged very greatly their standard line of cotton preparatory and spinning machinery by introducing many important refinements and economical improvements. Their product has for many years followed closely the machinery made by the well known English firm of Howard & Bullough, Ltd., and they have rigidly maintained the same high standards of design and finish which have always characterized Howard & Bullough Machinery. Efficient distribution of weight, ample bearing surfaces and precise methods of manufacture are features which reflect the excellency of their product.

About 1912 this firm introduced the Patent Duplex Carding Device and since that date have equipped over 6,000 cards of their own and other makes with this device. Mills using this attachment have not only improved to a marked extent the quality of their work but have also been able to increase materially the product per card.

About the same time this firm also brought out their Patent All Metal Gridded Cleaning Trunking, which has superseded the old style wooden cleaning trunking. This trunking can be built to hang from the ceiling or set upon the floor and is fitted with vibrating metal grids. These grids hang loosely on a toothed rack and to clean the trunking it is only necessary to open the door at the bottom and allow the accumulation of sand, dirt, etc., to fall out. This trunking is built in standard four-foot sections and can be inserted in any part of the cotton conveying pipe line.

The introduction of their new type Crighton or vertical opener proved a notable addition to the wide range of preparatory and opening machinery previously built. These openers are made with or without cage sections and also furnished in two or three units arranged in tandem. The principal features of construction are a vertical conical beater built up on a strong shaft with long upper bearing, firmly fixed to insure perfect steadiness in running. Adjustment of the beater is provided by means of a jack screw which passes through the bottom plate and under the footstep casing. Grids of the Buckley or other types surround the vertical beater and the casing is built in sections, the sides being planed on the edges to insure accurate fitting of every joint. This machine is being extensively used for short and medium staples and is finding favor on long staple cotton when working in combination with other openers.

Perhaps the most notable advance made by this concern in the pre-

paratory process of cotton spinning was the introduction of their new Consolidated Automatic Feeder, Buckley Opener and Breaker Lapper. With this machine by adopting methods of securing as much cleaning as possible by combing lattices and cylinders they have been able to produce even and clean yarn from low grade cotton and quality yarn from standard grades. The original Buckley opener was an outgrowth of the Willow, the most essential feature of which was the large cleaning area obtained by the upward stroke of the beater. On the new H. & B. machine the cleaning grids have been more than doubled and now cover fully two-thirds of the periphery of the cylinder. Provision is also made for the cotton to pass over a continuous gridded surface after it has been discharged from the cylinder to the face of the exhaust cages. The Buckley opener is fitted with a piano pedal link regulator which accurately governs the amount of cotton passing through the feed rolls by automatically controlling the delivery of the hopper feeder. Horizontal eveners cones are used enclosed in a vertical regulator box. The feeder used with the Buckley opener is of a new type fitted with small exhaust cages and a cylindrical stripping beater with six rows of fixed spikes. Transverse grid bars and narrow grid plates are arranged to form a gridded channel for the cotton up to the cages. The receding pin regulating cylinder is adjustable and a heavy spiked elevating lattice is used to prevent accumulation of fly. The breaker section has been redesigned and improved so that the entire machine gives a full width feed, that is, the cotton in its passage through the consolidated machine is at all times maintained at a given width. This feature is an important factor in the results obtained, as essential cleaning is secured with a minimum amount of beating. It is claimed that the laps made on this machine are not only regular in weight per unit area but thoroughly fleeced suitable for the finisher process.

The new special heavy twister recently developed by this concern for tire fabric and heavy duck yarns has filled a much needed want in the trade. This machine is tape driven and embodies many novel improvements. Although designed and built for the heaviest kind of doubling, it presents a splendid appearance and balances up well with their lighter models for ordinary work.

Other important improvements we recall made by this concern include tape drive spinning and twisting frames, endless band drive for heavy twisting, bunch builders for spinning frames, special arrangement of troughs for wet twisting, Ermen clearers for slubbing, intermediate and roving frames, sheet

(Continued on Page 86)



## Two buy words in belting, "Flintstone" and "Turtle"

Two brands of belting, originated by Hoyt, the founder of this firm, and developed through generations by us, are "Flintstone" and "Turtle."

"Flintstone" is high-duty, long-lasting belting that has built up a well-earned reputation for trouble-free power transmission. It meets the high Ladew standards and guarantees you maximum belting service at minimum belting cost.

"Turtle" is the original water-proof leather belting. For main drives and all other purposes where the utmost in service is desired in the presence of moisture, steam, oil or acid fumes, "Turtle" has a record of performance that commands unlimited confidence.

To learn how these belts will save money in your plant, send in the coupon for a copy of "The Proof Book."

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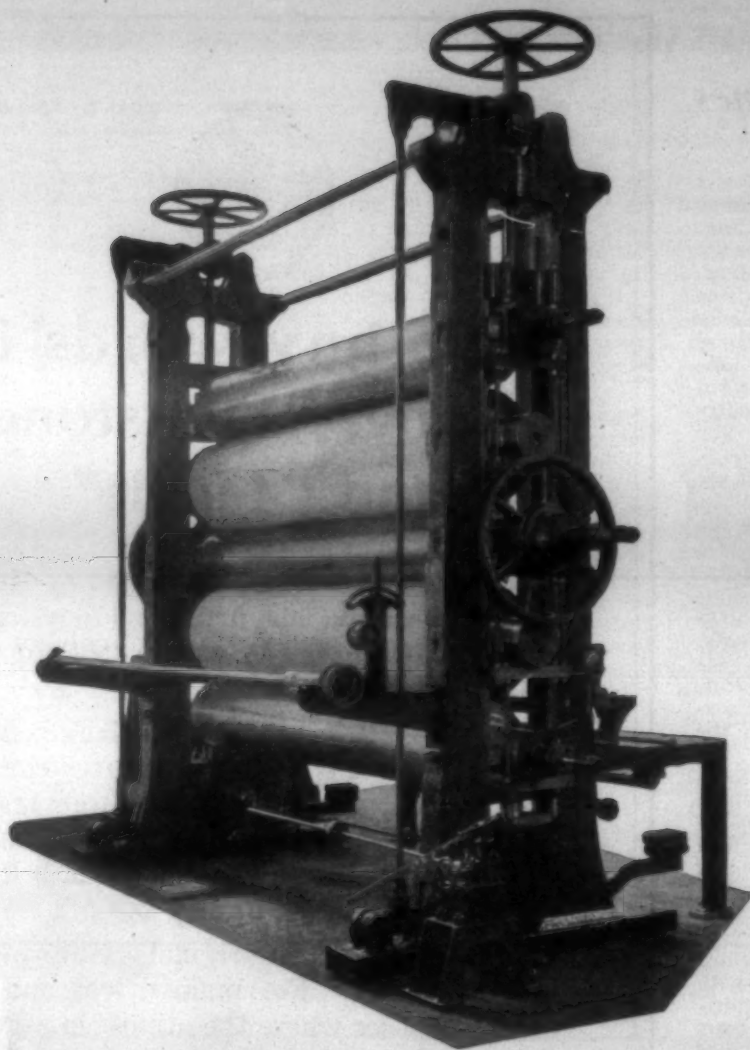
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## Five Roll Calender with Hydraulic Jack

The hydraulic attachment on this calender parts the rolls when it is necessary to let the calender stand idle from time to time. This saves climbing to the top of the machine 13 or 17 feet and parting the rolls by means of a hand wheel. The jack is fitted with single action hand operated hydraulic pump, while the calender is fitted with a pair of hydraulic cylinders and rams. There is a latch on the calender which holds the rolls in place while the calender is in operation. When necessary to part the rolls, a few strokes of the pump releases latches and allows rolls to part. The distance between the rolls is governed by the position of the saddle at the end of the journals. Through this jack, an operation

# BUTTERWORTH



which ordinarily requires two men and from 10 to 15 minutes of time, is done by one man in about two minutes. In places where a motor driven raising and lowering apparatus is being used, the motor and other parts of the machine are apt to drip oil and cause no end of dirty goods and seconds. This danger is eliminated.

The two filled rolls of this calender are both cotton and <sup>2</sup>husk. The three chilled iron rolls are fitted for steam heating. The drive is by motor, direct connected through close connected helical gears which assure plenty of power and silent operation. The calender is lubricated by a gravity oil system which supplies lubricant directly to the part which requires constant lubrication. The calender has heavy housings; knee brackets, tension bars with friction let-off and can be equipped with either slip belt winder or other winding devices.

We'll be glad to tell you about other Butterworth Machines and place our organization at your service in any individual finishing problems where you feel that we can help you.

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### Butterworth Ager for Hydrosulphite and Aniline Work

Butterworth Agers are equipped for all classes of hydrosulphite and aniline work and have perforated steam pipes top and bottom. Heating coils for high pressure steam are placed on either side or bottom. This enables you to readily produce and conserve a high temperature. There is a patented automatic mouthpiece for entry and delivery of cloth. This excludes practically all air.

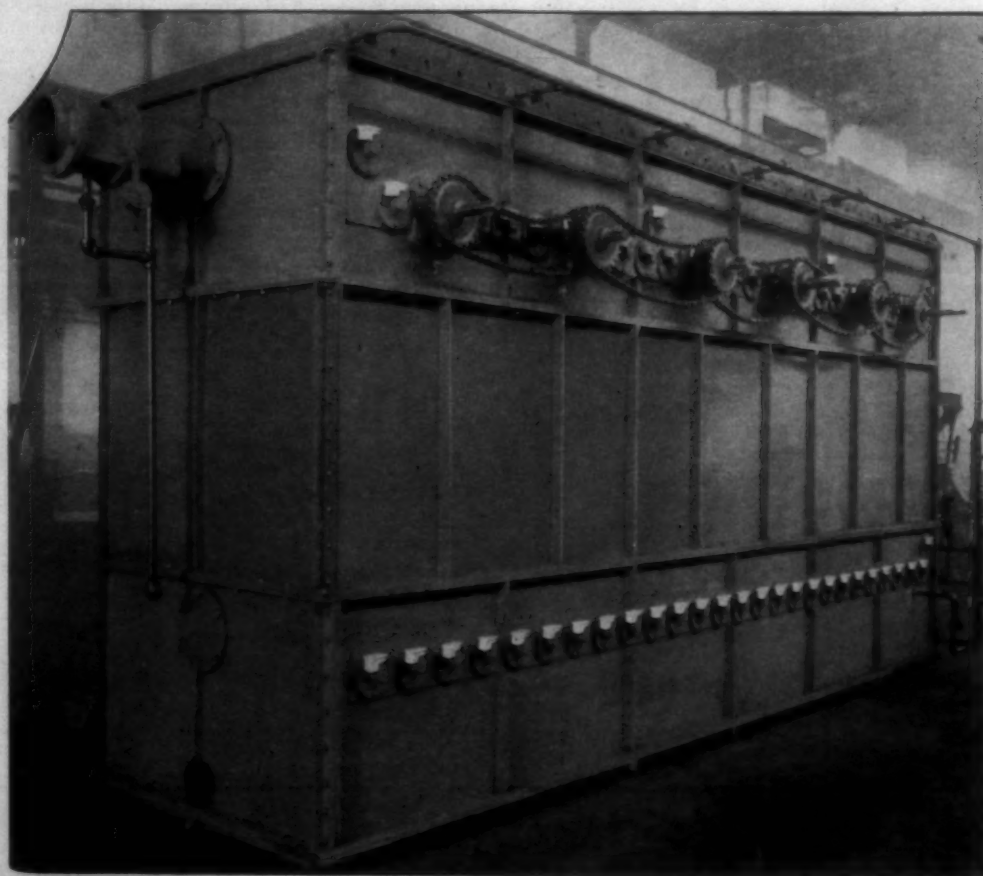
In the construction of Butterworth Agers, every precaution is taken to prevent the formation of drops of condensation. All joints are planed and bolted, making an absolutely air tight box. There is an automatic ventilator to permit the outlet of steam and gases.

Butterworth Agers are easily controlled, being equipped with valves necessary for doing all kinds and character of hydrosulphite and aniline work.

Butterworth Agers can be had in any length, each section being 6 feet long and fitted with a door 18 x 24 inches.

Journals are fitted with Butterworth Sharpe grease cups, which assure constant lubrication as long as the Ager is operating.

Butterworth Agers are furnished with cut sprockets and roller chains, as well as with cut bevel gear drive. In the latter drive, all top rollers are driven, eliminating pull on the cloth.



# Finishing MACHINERY



# Southern Fabric Developments

By Harry Riemer

Cotton Goods Editor, Daily News Record.

THE expression, "The New South," applies equally to the mill situation today, compared with fifteen years ago, as it does to the reflection of general industrial progress of the territory below the Mason-Dixon line.

From a market viewpoint, the South has crept up, at first gradually and then with rapid strides into the field of quality in the majority of the textiles which it is producing. It is not so long ago when the buyer of cotton goods was decidedly prejudiced against fabrics which were not made in New England. This sentiment then had reference to practically all of the textiles produced in the South—and not without reason. It is definitely within the past five or six years that the South received its first important recognition by the converters of the big markets of the country. This came in the form of the acceptance of Southern print cloths in competition of those made in Fall River and in other parts of the Eastern territory.

Print cloths might be considered the first step of the Southern mills in the direction of making finer goods. Ten years ago, even at a premium, Eastern print cloths were considered preferable to Southern. Fall River was the big print cloth market—and it was there that buyers looked for all of the necessary information which they required. Fall River was the barometer of the textile industry from the viewpoint of print cloth production and sales.

Soon after the first realization in this market that Southern mills had perfected the spinning of yarns suitable for print cloths, and were weaving the fabrics themselves with as much skill as anywhere else in the country, the situation changed completely. With very few exceptions in the past five or six years, Southern goods of this character have been competing on an equal basis with those of the best mills in the East, any price difference usually being the result of a freight advantage to the finishing plant, in favor of the New England mill. This might be termed one of the most important developments in the progress of the South because of the breaking down of the tradition of coarse goods in the South with regard to print cloths, was the avenue for entree of all other Southern merchandise with buyers. It does not take long for sentiment to spread and the knowledge that already converters were using Southern print cloths with success equal to that of Eastern, and sometimes even more so, was soon talked of by wholesale and retail buyers, completing the first notable achievement in arriving at the position which these mills hold today.

Not so many years ago, the weekly sales recorded in Fall River were a gauge for market activity. This is no longer the case. As a matter of fact, the weekly sales reports from Fall River have had no

significance from a general market viewpoint for sometime. It is not infrequent for Southern mills to sell more print cloths in one day than is sold in the East in a few weeks.

The fact that the large printers of New England purchase whatever goods they buy in the open market, from Southern mills, largely, is clear reflection of the quality of the merchandise in question.

The bulk production of the South grew along two avenues—sheetings and print cloths. In difficult markets, stocks soon became so large that prices were very unprofitable, and mill owners were faced with a serious problem. Then followed the further step in the making of fabrics which had hitherto been confined to New England. For instance, filling sateens used by the clothing and underwear trades had always been definitely identified with the East. When Southern mills undertook to produce similar goods a few years ago, the first results were far from satisfactory and there were predictions that buyers would have no alternative but to place orders in New England where they were seeking quality. Not discouraged, however, Southern mill owners continued in their experimenting, and in several instances are now turning out sateens with soft spun yarns which meet the trade's requirements. Apparently this development has been rather difficult because some Southern mills had given up their efforts in the making of these particular goods. Southern sateens are not quite considered on a par with the best Eastern as yet, from the price viewpoint, but this situation is vastly improved over what it was a year ago.

Southern mill owners have been alert to every change in tendency, and have not hesitated to tackle the most complex propositions, in order to keep machinery in operation, and yet be able to benefit from the best poundage returns offered by the market.

Carded broadcloths have been produced in larger quantity in the South than elsewhere in the country. This is true right now and has been true ever since the demand for these fabrics first appeared.

The South has undertaken the manufacture of reverse twist striped sateens, principally with carded yarns.

It is some years since the quality of the merchandise produced by the Judson and Duncane mills was first recognized in the New York markets. Here was an experiment that was radical in nature. Converters were skeptical enough regarding the desirability of the higher grades of coarser fabrics which were made in the South, but they were not willing to be convinced, at the start, that combed yarn fancies made in

the South could compare with those of New Bedford. The South's first strides along the paths of fine yarn goods were recognized as an achievement of more than ordinary importance. The perfection in the manufacture of novelty shirtings placed the product of these Greenville mills on a basis where they called for preference in many instances over Eastern-made merchandise, with more than a few of the most capable converters. The success of these two mills in this type of work, so radical compared with to what was being done by the Southern mills generally, has brought to the point where, here in New York, we have to distinguish very frequently between Southern and Eastern fine goods when prices are mentioned. Strange to say, in this particular end of the business, the Eastern mills have given their Southern competitors the hardest kind of competition, almost the reverse of what has been true in the coarser fabrics. New England has a natural tradition that the fine yarn business must be maintained by it, in supremacy, and the battle to hold this, is evident in the comparison of prices that are often heard. But Southern mills are progressing and participate to a very conspicuous proportion in the business which has been and still is current.

One of the marvels in the age in textiles is the manner in which so many mills making coarse colored yarn goods have changed for finer merchandise, being woven with rayon. To one who has been familiar for many years with the kinds of goods which were being sold at the various commission houses representing Southern mills, the transition, as it appears today, is not short of phenomenal. In a sense, the market has had to regard the South differently to a large degree. It does not seem an exaggeration, although we have no figures to prove it, to say that the South is offering today fully one-half of the rayon mixed fabrics which are now on the market. Without exception, each of these commission houses, just referred to, have substituted rayon fancies for ginghams or chambrays or it might be some other low end colored fabric. Close attention to styling has placed many of these organizations in a position where they have been competing and continue to compete with mills making goods in other parts of the country. There should be no misimpression in this respect, however. Many of the Southern mills which have made these startling departures from their previous products have not quite given the matter the serious attention which it demands. Evidence of this has been noted in the market. Oppor-

tunity for improvement is great, but there is no reason to feel that the mills in question will not measure up. The fact remains that those who have gone after this new business with a serious effort have succeeded in placing their rayon fancies with buyers who are known to be careful and acquainted with the sources for choice goods.

Marketing has been given close scrutiny by Southern mills and their selling representatives. Comparison of the status today of methods of selling and plans for production, shows great contrast with that of ten years ago or more. In spite of the diversification from which the South has been striving, it must be recognized that bulk output will always be on the plain and staple cloths. On these, this big industry will always find it necessary to place its greatest burden. Selling houses have been studying the trend of consumption in competition and find that this runs to better volume with the elimination of profits on the part of "middle processes." This is particularly true in bleached goods, where there have been arrangements whereby mills and bleacheries operate together, merchandising the finished product, with calculation of but one profit on the entire scheme. At the moment, the indication is that the trend in this direction will become more prominent.

Southern mills have undertaken the production of goods mixed with real silk, in both plain and fancy weaves. This has been with varying degrees of success, some of these fabrics commanding a place of recognition in this market, while there are others yet that have not emerged from what might be termed the experimental stage.

The finishing of these fine goods which only a few years ago was necessarily an Eastern proposition, is now being conducted in the South with perfect satisfaction to the converter and to the wholesaler. It is only a matter of time before the present facilities for the finishing of these fine yarn goods in the South will be greater expanded.

The development of the khaki business in recent years has added notably to the volume of business in the South. Years prior, all of these twills, drills and other such fabrics were shipped to New England for processing into khaki. With new finishing plants, the South has gone after this business vigorously and has captured the largest part of the business. Important factors with mill and finishing facilities within close distance of each other have given the khakis specialized attention, reducing costs to minimum, as well as improving the dyeing to a remarkable degree. Some of the fast shade khakis now being turned out in the South measure up to the most rigid specifications and compare with the best similar goods turned out anywhere in the world.



# HOUGHTON

## ABOUT DRIVES

### *An Outburst*

by Chas. E. Carpenter,

Near Editor of

*The HOUGHTON LINE.*

**I**F you live in a community where they have no drives, or tag days, for the love of Mike send me your address, for I will consider moving there most seriously; that is if you will have me.

Up our way they have a perpetual performance of drives, asking for contributions to everything and anything, so skillfully engineered and worked that many a fine chap discovers before the year is well advanced, that he is obligated to pay more subscription installments to various things than he can afford and as a result he has not sufficient left to do his duty by his own family, particularly his poor relations.

In Philadelphia they have a group drive—one big drive which takes in everything and anything, excepting the things in which I am most interested—and I don't mind stating frankly that I like this group drive least of all.

Likewise in power transmission, there are all sorts of drives, and we find those interested in selling motors advocating the direct drive, perhaps because it is best and perhaps because it sells the most motors.

Then we have an organization alleged to

represent the belting manufacturers (which it does not), advocating belt drives and when they cannot get away with all belt drives, they accept electric group drives as the least of two evils.

E. F. Houghton & Co. do not profess to either decide or dictate whether the group, or individual drive is preferable, because they realize that as manufactures of belting their opinion must be more or less prejudiced.

All that E. F. Houghton & Co. propose to do is to supply the best belting—VIM Leather Belting—for such belting drives as the engineers decide should be belting drives.

There are some textile mills which have accepted direct, individual drives, because they desired to avoid oil stains which occur from overhead machinery. To such we might state, that HOUGHTON'S ABSORBED OILS obviate all oil stains. These are not stainless oils that are easily removed from the cloth, but they are lubricating oils, that do not get on the cloth, because they will not drip.

So there is no necessity to change your drives to avoid oil drip.

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## Whitin Machinery Contributes to Textile Development

By John W. Lasell, of the Whitin Machine Works.

WHEN the Southern Textile Bulletin asked us to help them to celebrate their fifteenth birthday on March, 4, 1926, we not only congratulate them upon this important event but also felt that it was a real opportunity to review the tendencies in mill practice in the last fifteen years as viewed from a builder of textile machinery.

First, let us consider what appears to us to be the direction in which the cotton textile world is moving as it considers the treatment of cotton.

In picking, cleaning and opening of cotton there has been a decided tendency towards more complete picking equipments being installed, thereby allowing the quantity of cotton per unit of picking machinery to be lessened for a day's run. This viewpoint has been brought about not entirely through the increased amount of foreign matter which is to be found in the cotton of today but also through the fact that the mill man has decided that by better opening, blooming and cleaning his cotton he saves himself much poor work in the later processes of spinning cotton, and also saves on the wear and tear of his machinery from cards through spinning.

This same tendency is to be noted as it concerns the carding of cotton. Practically all of the most efficiently run mills, wherever they have had room to do so, have gone to the trouble of purchasing additional cards, with the idea of lightening the amount of cotton passing through the individual unit. This again means cleaner cotton, stronger yarn, and less depreciation on the lickerin, cylinder and top flat wire.

Tape driven spinning frames are rapidly displacing the band driven frame. This is the natural result of a more even twist and the greater production which a tape driven spindle will give over a band driven spindle.

In the last few years there has been an increased amount of interest largely due to the high cost of cotton, in the manner of utilizing the various and sundry wastes resulting from the various processes through which cotton goes before it emerges as a finished product. This question has developed along two different lines,—one of which follows the cotton system and the other of which follows the woolen system.

It would be perhaps interesting at this point to see how these tendencies have affected us as machinery builders.

In the past few years many mills, in addition to feeding less cotton through their picker systems, have come to realize that the proper way of blooming, aging and cleaning cotton is to agitate it by means of a draft of air wherever possible. In other words, mills are beginning to realize that excessive beater speeds with the terrific blow which beater blades impart to the cotton is, if anything, detrimental to proper cleaning and always holds the chance of breaking the staple.

We have just brought out a new two-beater breaker lapper, consisting of a reserve box hopper feeder,

a 16-pedal evener motion, a 41-inch upstroke Buckley beater with an 13 inch three-bladed beater section attached. This machine is the outcome of a long and thorough study of the best picking machinery and the best picking practices to be found abroad and in this country. The hopper feeder always feeds a proper and an even amount of cotton to the evener motion the whole width of the machine.

The evener motion has been made more sensitive. The upstroke Buckley beater carries the cotton around an almost continuous surface of grid bars and dust bars, thereby assuring the maximum cleaning.

With this machine we expect to be able to do away with the process of intermediate picking due to the fact that the laps from this new two-beater lapper are even enough in weight so that a finisher picker is all that is necessary to make a lap for the cards.

In addition to this machine our picking machinery includes the following machines: Vertical openers, willows, exhaust openers, cleaning trunks of various kinds, Fearnought openers and pre-carding machines, hard waste machines consisting of one to six sections, two different types of overhead condensers, condenser and gauge boxes, downstroke Buckley openers with both 18-inch and 36-inch diameter beaters, card and picker waste cleaners, Morton distributors, C. O. B. machines and bale breakers with feed regulating aprons.

The C. O. B. machine is an example of the tendency of today to aerate cotton after opening it up in the bale breaker. In this machine cotton is blown against vibrating fingers which, by their gentle action, knock out much of the small leaf and grains of dirt.

In all of our picking machinery, in order to conserve on horse-power, ball bearings have been installed wherever possible.

Revolving flat cards have not changed in principle much of any in the last fifteen years. However, there are several refinements which are well worth noting. Adjustable bends are now used thereby allowing both back and front percentage plates to be set to very close limits. We have applied wind-breaks to both the back and front of the card to prevent and disturbing air current. Three different models of belt shippers can be had, as well as a door locking device, all of which go to protect the operative from being injured.

It is an accepted practice today for mills to ask for casehardened lickerin wire which we are always ready to supply. Even so small an item as the panels on the card sides have been made out of steel and are held in place by spring latches in order to prevent any possible rattle or any possible air current.

Combing machinery has seen in the last few years more improvement, with the possible exception of picking machinery, than any other

one phase in the development of textile machinery. We are taking this opportunity of calling to your attention the fact that we have recently developed and brought out the most improved comber evolved in the last two decades. The D-3 comber, needless to say, is thoroughly and comprehensively patented. We can give in an article of this sort only a very general picture of its accomplishments.

Firstly, this machine will give more production per square foot of floor than any other cotton comber in the world.

Secondly, giving a quality of work equal to that of any other cotton comber this machine takes out less waste.

Thirdly, due to the fact that the nipper frame is suspended from two points, the lip of the nipper is always concentric in its arc to the needles of the half lap, thereby allowing each and every needle of the half lap to pass through the tuft of cotton with its full depth.

Fourthly, due to the same two suspension points the nipper frame, when it becomes time for the detaching mechanism to come into action, reverses its arc and presents the tuft of cotton in the proper position for the best possible piecing.

Fifthly, the resultant sliver is cleaner and more even than heretofore possible.

Lastly, for the first time the adjustments controlling the timing of the nipper, the tension of the nipper, the position of the nipper to the half lap, the depth and angle of the top comb and of the detaching rollers are well nigh unlimited. This machine we feel is perhaps the greatest contribution we have made to the textile industry during the life of our friend, the Southern Textile Bulletin.

Two years ago, after an exhaustive study of the best drawing frames in existence, we brought out our improved and simplified Model "H" drawing frame. This machine was built with the following ideas in view: Simplicity and strength in construction, ease in operating and in erection, the machine at the same time being positive in all its stop motions. Some of the improvements of this entirely new machine are as follows:

Vibration and end sway have been reduced to a minimum by the special design of the end legs and due to the manner in which the table is secured to them. On the metallic rolls the collars have been increased in width to insure a longer life. The Ermen clearer has been redesigned and it is now possible to remove each individual clearer cloth when necessary by having designed the clearer driving shaft in sections with a special coupling. The frame is much easier to keep clean than heretofore. To minimize the amount of time necessary to change the gearing both the head end and foot end gearing stands have been simplified, and by the use of standardized bolts and screws used on the

machine this drawing frame can be erected with very few wrenches.

In other words, this new frame has been developed with the idea of helping the mill operative and the mill in every possible way.

There have been many interesting changes in roving frames, and in the past fifteen years the tendency has been to increase production on roving. This has been brought about not so much by a change in the design of the machines as much as by improvements such as casehardened studs, casehardened rolls, and special attention to the lubrication of the machines. There have been many minute improvements which, when added up, go to help the operative in running his machine and saving the mill costs in repairs and in time wasted. Today the draft gear stand allows any change of crown and gear and front roll gear to be always in mesh. This saves the time of having to adjust these two gears separately as heretofore.

The shipper rod is so located that it allows the clearers to tilt back without being in contact with the roving in the creel. To allow for higher speeds the studs in the horse-head arm have been hardened and ground with Osgood oil grooves. The gears are oiled through the center of the studs. Spindle steps have been made self-oiling. Roving frames have been carefully guarded at all danger points. All the guards are now being made out of steel whereas in the old days they used to be made out of wood.

On spinning frames the tendency, and a strong one, has been towards the wider gauge frame, without separators, with tape drive. As mentioned before, this has resulted in a more even twist in the yarn, an increased production and a better yarn than could be had on a band driven frame. This has been the major improvement on spinning frames but there have been many minor refinements which in themselves have helped the spinning frame to run at less cost and to give better work than ever before. We can here cite one of our own experiences of the last few years,—we have installed a most up-to-date set of electrical furnaces for the purpose of casehardening front rolls and rings. We have found that we can turn out steel rolls and spinning rings which are of higher quality than ever before. This naturally is all in the mill man's favor inasmuch as it will mean less repairs and also better work from the frames.

By a careful study of spindles we have been able to standardize them, and, by making the shank of the spindle longer, we have been able to reduce the vibration without consuming any more power. The spindles of today do not throw oil. We might mention in passing the following as some of the minor refinements which have taken place:

The back bar is now made out of steel. The traverse motion is now self-contained, thereby being independent of any necessary roll adjustment. Today we are ready to supply either the swinging door on

(Continued on Page 98)



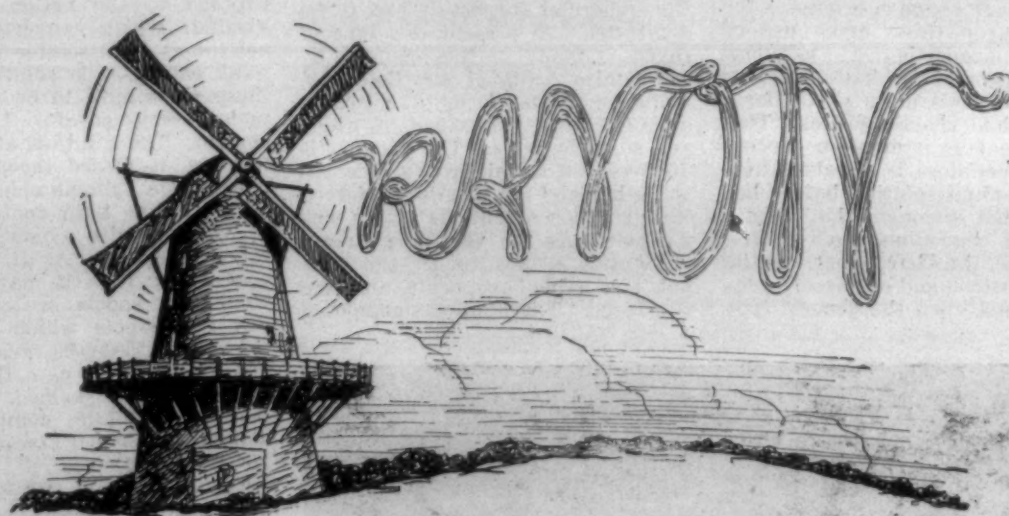
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## The Chemistry, Manufacture and Uses of Rayon Yarns

IN an address on "The Chemistry, Manufacture and Uses of Rayon" before the Northeastern Section of the American Chemical Society at Boston, Dr. Gustavus J. Esselen, Jr., director of research and vice-president of Skinner, Sherman & Esselen, Inc., pointed out that during 1925 rayon had been an Aladdin's lamp that had meant prosperity for many cotton mills. Although sometimes referred to as artificial silk, it should be recognized that rayon's only resemblance to silk is its outward appearance. Chemically it is in no way related to silk and in reality it is a new fibre with distinctive and valuable properties of its own.

This new fibre, formerly known as artificial silk or fibre silk, is a manufactured fibre as distinguished from silk, wool, cotton or linen which are all natural growths, either animal or vegetable. It is produced in immense plants which have been referred to as magnified chemical laboratories because every step in the process has to be under the most strict chemical control. The fact that it is a manufactured product means that its production is not dependent on the vagaries of nature and its price is therefore much less subject to fluctuation. It is also characterized by a low price when based on pre-war standards. Today the price of wool is about 133 per cent above what it was before the war, cotton 100 per cent, and raw silk about 70 per cent, whereas rayon is only about 10 per cent above pre-war prices.

Rayon was first produced in the United States in 1912 when about one million pounds were made. In 1920 this production had increased to over ten million pounds and it is estimated that last year over fifty million pounds were made in this country alone, this being about 30 per cent of the world's production and almost twice as much as produced in Great Britain, which comes second in the list of producing countries.

There are at the present time four general methods for making artificial silk, each dependent upon a different series of chemical reactions. All, however, start with some form of cellulose, convert it into a liquid of about the consistency of honey, force it through very fine orifices in a device called a spinneret and then in some way remove enough of the chemicals so as to reconvert the liquid to a more or less solid condition. Since this solid is continuously formed as the liquid emerges from the spinneret it naturally forms a continuous filament. Usually each spinneret has a number of openings so that a single thread as it comes from the spinning machine may have as high as eighty or even more minute filaments.

In order to get a better insight into the chemistry of the various processes for the manufacture of rayon, it may be well to consider briefly certain phases of the chemistry of cellulose which is the

versal raw material for rayon. The purest form of cellulose in nature, as you all know, is cotton, and cotton, usually in the form of linters, is used in some cases for making rayon. A great deal more, however, is made from wood pulp, which is the cellulose from trees, usually spruce, from which the non-cellulose materials have been separated by cooking under pressure with calcium sulfite, usually referred to as the sulfite process. In either case the essential constituent is cellulose and it has been demonstrated that we have the same chemical individual to deal with whether it comes from cotton, from wood or even from straw.

Industries using cellulose are centuries old, but it is only a comparatively very short time that even the empirical composition of cellulose,  $C_6H_{10}O_5$  has been known. With that the chemist was for a long time stopped because he could not crystallize cellulose and he could not even find its molecular weight. Now, however, he has a picture of the structure of the cellulose molecule which seems to account for most, if not all, of the facts known about the chemical behavior of cellulose. In addition to this, however, it has to be recognized that cellulose is a colloid, shown by the X-ray to be made up of minute "ultramicrocrystals" of the rhombic system.

Of the four common processes for making rayon three make use of chemical properties of cellulose characteristic of aliphatic alcohols and one depends more particularly on its colloid characteristics. This last is the cuprammonium process in which cellulose is dissolved in a cuprammonium solution before being squirted through the minute orifices of the spinnerets. Of the other three, the Chardonnet and the acetate (lustron and celanese) processes depend upon the general type

of reaction known as esterification. This leaves the viscose process which in chemical terms is essentially a combination of alcoholate formation followed by xanthation.

There are two companies using the acetate process in this country; the product of one is known as lustron and that of the other as celanese. For lustron the acetate used corresponds fairly closely to the triacetate and the solvent consists largely of one of the higher chlorinated hydrocarbons. The solution as it leaves the spinnerets is precipitated in a hydrocarbon bath which is miscible with the solvent but is a non-solvent for cellulose acetate. The cellulose acetate used for the production of celanese corresponds more closely to the diacetate and the solvent in this case is acetone. The resulting solution is forced through spinnerets into a warm atmosphere where the acetone evaporates leaving the cellulose acetate in the form of fine filaments. In either case it is to be noted that the finished fibre is an ester of cellulose and not regenerated cellulose, as is the case with the other forms of artificial silk. The significance of this will be apparent later when the properties of the various types are considered.

The original artificial silk of Chardonnet was also an ester of cellulose but in that form it was so inflammable that before it became a commercial success it had to be denitrated. At present this type of rayon is made in this country by the Tubize Artificial Silk Company. Cellulose in the form of cotton is nitrated with a mixture of nitric and sulfuric acids. The product is dissolved in a mixture of alcohol and ether and the solution is forced through glass spinnerets with a single hole. As the very fine stream of solution strikes the air, the alcohol and ether evaporate and are recovered. The filaments composed

of cellulose nitrate are then treated with a solution of sodium hydrosulfide, the resulting action being essentially a hydrolysis whereby the nitro groups are split off and cellulose regenerated. This gives a product no more inflammable than cotton.

In the manufacture of cuprammonium artificial silk or Bemberg silk, as one modern modification of it is called, the cellulose, usually in the form of purified cotton linters, is dissolved directly in a special liquid known as cuprammonium solution. After carefully filtering the solution is squirted into a precipitating bath which may be either acid or alkaline. In the Bemberg process, the procedure is so arranged that at the start the cellulose is only partially precipitated and while in this gelatinous condition the thread is drawn out until it is as fine as natural silk. At this point the coagulation is completed by passing the fibre through a second precipitating bath.

In the viscose process by which probably 85 per cent of the present output of rayon is produced, the cellulose, usually in the form of wood pulp, is first treated with caustic soda solution of approximately 18 per cent strength and after the removal of the excess alkali liquor, the cellulose is broken up into small particles. After standing a proper length of time it is exposed to the action of carbon disulfide which converts it into a gelatinous form soluble in water or weak caustic soda solution. All of these steps have to be carried out under very careful temperature control. The solution, after careful filtering, is forced through minute openings in suitable spinnerets into a coagulating bath containing acid or various salts which have been found effective. As it leaves the coagulating bath it may either be wound on spools or led into so-called spin-pots which revolve at the rate of 5000-6000 revolutions per minute. In either case, the material is subsequently skeined, freed from residual sulphur compounds by suitable chemical treatment and bleached if desired.

The various types of rayon on the market today naturally fall into two general groups. The first consists of the products made by the nitro-cellulose, the cuprammonium and the viscose processes. Chemically, these are all regenerated cellulose and are quite similar. However, they all have their own peculiarities when used in textiles and unless one is familiar with the differences in properties, these variations may appear quite formidable. In fact, there often is a difference between the same kind of artificial silk made by different companies.

The second group of rayon contains the two varieties of cellulose acetate silk, celanese and lustron. As has been pointed out, these are quite distinct chemically from the other group in that they are chemical compounds of cellulose, esters,

(Continued on Page 46)



Drapery Fabric Made Largely from Rayon.



the 120 and 300 denier but it may be obtained as fine as 50 denier and as coarse as 450 denier. In general the finer the denier the higher the price. Owing to its greater strength, nitrocellulose silk is particularly adapted to the finer sizes and the Tubize Company, which manufactures this silk in this country, specifies in the production of 50 to 100 denier a quantity of viscose which may be used in 50 denier size and celanese as fine as 45 denier.

Already brought out, what appears at first sight as a single strand of artificial silk is really made up of a number of very fine filaments, usually between 18 and 24. When greater softness and pliability are desired, the individual filaments are reduced in size and increased in number. This also increases the covering power but has a tendency to reduce the wearing qualities. At least one manufacturer of viscose silk puts out what is termed super extra yarn consisting of filaments of about 2½ denier each, whereas in their regular yarn the individual filaments are about 6 denier.

The softest and most pliable of the artificial silks is celanese and accordingly it may be woven into very pleasing fabrics particularly for underwear. Its greater heat insulating properties also make it desirable for this purpose and just at the present time the demand for underwear made of this new fabric is greater than the supply. In other types of fabrics, however, where a certain stiffness is required, viscose or nitrocellulose is superior.

In finishing celanese, too hot water should not be used or the color will be affected. A safe limit is 100 degrees F., although the fibre will stand a little higher temperature without injury.

One very interesting property of artificial silk is its comparative price stability. At present it is only 11 per cent above the pre-war price as compared with 137 per cent for wool, 100 per cent for cotton and 68 per cent for raw silk. Artificial silk was first manufactured in this country in 1911 when 23,000 pounds were produced or roughly 1,000 pounds per day. Last year the production was about 21 million pounds or about 17,000 pounds a day with an annual value of over \$100,000,000. Stated in this way it seems large but when one realizes that it is only about 1.5 per cent of the total consumption of cotton or 1 per cent of that of wool, it is seen that there is still plenty of room for expansion in the industry.

The talk was illustrated with lantern slides showing the equipment of a modern rayon plant and views in a typical American rayon factory. There were exhibits showing actual material at various stages of the viscose process and some viscose rayon was actually produced before the audience in a small demonstration unit of the spinning type. There was also a show of the various kinds of rayon as well as fabrics and even whole garments made from them.

## and Uses of Rayon

(Continued from Page 44)

rather than cellulose itself. This difference in chemical constitution is responsible for a marked difference in properties of the silks in these two groups. One of the chief differences of any fibre is of course the strength. The best artificial silk when dry is about 55 per cent as strong as cotton but it runs as low as 25 per cent when wet. The marked characteristic of rayon as compared with natural silk is the comparatively large loss of strength when nitrocellulose is the worst in this respect. When the nitrocellulose is the strongest, it loses 50 per cent of its strength when wet and acetate the viscose next, and acetate the least. A loss of 58 per cent of strength is not a very good thing for a fibre which is supposed to be strong. Only about 40 per cent loss for acetate and 30 per cent for viscose. Such fabrics and garments are supremely worth featuring. The leading retail merchants of America join those of Europe in recognizing this fact. In their dress departments, their lingerie departments, their hosiery departments—above all in their windows—Celanese brand fabrics are inevitably given the fullest emphasis.

## A distinctive characteristic of Celanese brand yarn

**FABRICS and garments made with Celanese brand yarn are always conspicuous for their loveliness. Only the richest of silks can match their glowing splendor. Is it surprising that they always sell quickly and profitably?**

Such fabrics and garments are supremely worth featuring. The leading retail merchants of America join those of Europe in recognizing this fact. In their dress departments, their lingerie departments, their hosiery departments—above all in their windows—Celanese brand fabrics are inevitably given the fullest emphasis.

The retailer finds it pays to feature Celanese brand yarn. So, too, will you.

Celanese brand yarn is not rayon. It has distinctly different properties. It is waterproof, highly elastic, and remarkably durable; and it has unique hygienic qualities. Dyed with its special SRA dyes it is fast to sun, soap, salt-water and perspiration. Even in a plain fabric no shiners are ever found when Celanese brand yarn is used.

Another thing which should be noted is that the group used to silk of the first group sometimes experience trouble when they try to make it, but there is no need for this in the fundamental difference of the two fibres. It is recognized.

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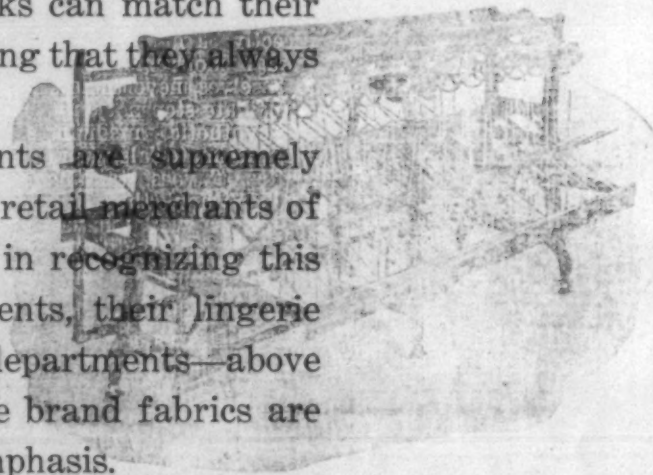
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WARPING and SPECIAL MACHINERY

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The Ideal Winder for Rayon



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Interesting model can be seen claimed at our office

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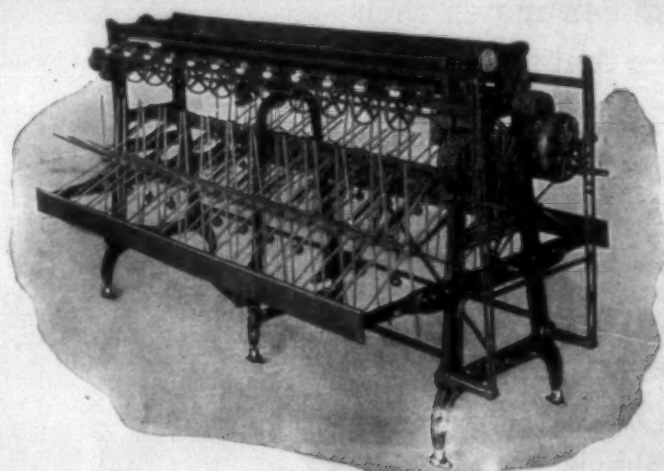


# WINDING

WARPING and SPECIAL MACHINERY

## FOR RAYON

The Ideal Winder for Rayon



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Steel pipe frame construction and  
patented rigid traverse motion

An interesting model can be seen  
and explained at our office

**THE SIPP MACHINE CO.**

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### Chemistry, Manufacture and Uses of Rayon

(Continued from Page 44)

rather than cellulose itself. This difference in chemical constitution is responsible for a marked difference in property of the silks in these two groups.

One of the most interesting properties of any fibre is of course the strength. The best artificial silk when dry is about 55 per cent as strong as natural silk of the same size, while much of it runs as low as 40 or 45 per cent of the strength of natural silk. One marked characteristic of rayon as compared with natural silk is the comparatively large loss of strength when wet. Cuprammonium, viscose, and nitrocellulose are the worst in this regard, and acetate silk the best. On the other hand, it should be noted that when dry, nitrocellulose silk is the strongest, cuprammonium and viscose next, and acetate the weakest. Accordingly, although nitrocellulose silk loses 58 per cent of its strength when wet as against only about 40 per cent loss for acetate, the nitrocellulose silk is so much stronger than the acetate when dry that both have about the same strength when wet and both are a little stronger wet than viscose.

It should be noted that the effect of moisture on artificial silks is the opposite of that on cotton. Furthermore, artificial silks not only become weak when wet, but particularly those of the first group when in this condition are easily stretched. This reduces the cross section and thereby weakens the fibre. Accordingly care should be taken in handling wet artificial silk to see that it is not stretched and injured.

As another direct consequence of this effect of moisture and ease of stretching care has to be exercised in the weaving and knitting. With fibres of the first group, that is, nitrocellulose, viscose and cuprammonium, the humidity of the air should not be high, not over 65-70 per cent in any case. On the other hand, acetate silks, probably due to their relative waterproofness, require a higher humidity to keep them from being brittle. For this reason concerns which have become used to silks of the first group sometimes experience trouble when they try acetate silk, but there is no need for this if the fundamental difference between fibres of the two groups is recognized.

Another thing which should be kept in mind in weaving fabrics containing both cotton and rayon is that these two fibres contract differently in the finishing operations, artificial silk requiring often as much as 8 per cent more length than cotton. As little tension as possible should be used and still have the yarn lay flat. With celanese this is particularly important because celanese, alone of the artificial silks, has a certain amount of elasticity and accordingly as little tension as possible should be used to prevent this elasticity coming into play.

The most common sizes of rayon are 150 and 300 denier but it may be obtained as fine as 50 denier and as coarse as 450 denier. In general the finer the denier the higher the price. Owing to its greater strength, nitrocellulose silk is particularly adapted to the finer sizes and the Tubize Company, which manufactures this silk in this country, specializes in the production of 50 to 80 denier sizes in quantity. Viscose may be had in 80 denier size and celanese as fine as 45 denier.

As already brought out, what appears at first sight as a single thread of artificial silk is really made up of a number of very fine filaments, usually between 16 and 24. When greater softness and pliability are desired, the individual filaments are reduced in size and increased in number. This also increases the covering power but has a tendency to reduce the wearing qualities. At least one manufacturer of viscose silk puts out what is termed super extra yarns consisting of filaments of about 2½ denier each, whereas in their regular yarn the individual filaments are about 6 denier.

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In finishing celanese, too hot water should not be used or the luster will be affected. A safe limit is 160 degrees F., although the fibre will stand a little higher temperature without injury.

One very interesting property of artificial silk is its comparative price stability. At present it is only 11 per cent above the pre-war price as compared with 133 per cent for wool, 100 per cent for cotton, and 68 per cent for raw silk. Artificial silk was first manufactured in this country in 1911 when 320,000 pounds were produced or roughly 1,000 pounds per day. Last year the production was about 51 million pounds or about 17,000 pounds a day, with an annual value of over \$100,000,000. Stated in this way it seems large, but when one realizes that it is only about 1.5 per cent of the total consumption of cotton or 4 per cent of that of wool, it is seen that there is still plenty of room for expansion in the industry.

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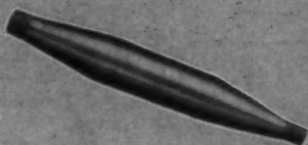


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We want them to work *with you*—to help you toward a better use of rayon and to solve the many problems involved. Either one of these men will be glad to make a trip to your mill and we hope that you will not hesitate to call upon us when the need arises.

Our success depends upon *your* success in the use of "Industrial" Rayon. That is why we have organized a Service Department. A little later, we plan to expand this department to include practical help on other problems connected with rayon (dyeing for example). In the present early stages of the rayon industry such a service should be of the greatest importance to you and to us.



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# Dyeing Artificial Silk or Rayon

IT is my intention to devote most of the time to the consideration of various phases of dyeing and finishing of rayon. I shall deal with the subject in a general way, considering the dyes as groups rather than individually, and omitting as far as possible the detail of processes.

Many of you may not be fully conversant with the character of the dyes available for the purpose of coloring textile materials. It may, therefore, be well to spend a few moments in an endeavor to classify, from the dyer's point of view, the various fibers used by textile manufacturers, and also indicate a few rather broad groups into which the dyes may be divided. In this way we may be able to create a background which will prove of considerable value in developing a clear conception of the problems involved in the dyeing of the various types of artificial silk or rayon.

The classification of fibers shown in Table I recognizes three rather distinct groupings:

(1) The Animal Fibers.  
(2) The Vegetable Fibers, including the Regenerated Cellulose Rayons.

(3) The Cellulose Acetate Rayons. Between all three there is a decided difference in the chemical composition of the fiber substance. The animal fibers are nitrogenous, containing as high as 18 to 20 per cent of nitrogen. This nitrogen occurs to some extent in the form of complicated amino acids, a fact which adds considerably to the chemical activity of the fiber substance, the amino or (NH<sub>2</sub>) groups exerting a basic action under certain circumstances and the carboxyl (COOH) groups, an acid reaction under other conditions.

The vegetable fibers on the other hand are non-nitrogenous, and do not contain carboxyl groups in their structure, but are for the most part carbohydrates of the cellulose type in which the hydroxyl (OH) groups are the most active, and these do not appear to be particularly reactive toward dyes. The regenerated cellulose, as the term

(Wool)	Animal Fibers
(Silk)	
(Cotton)	Vegetable Fibers
(Linen)	
B. Viscose	
(Cuprammonium)	Regenerated Cellulose
(Nitro)	
(Cellanese)	Cellulose Acetate
(Lustran)	Group

Table I

indicates, are practically pure cellulose and naturally act similar to cotton.

With the cellulose acetate group of rayons, however, we have an entirely different condition, for they do not contain any straight

A Paper by Prof. Louis A. Olney, Professor of Chemistry and Dyeing, Lowell Textile School, before Northeastern Section of the American Chemical Society.

cellulose but instead a cellulose ester of acetic acid which, roughly speaking, contains almost as much acetic acid residue as cellulose residue. As a result these fibers have a reaction toward dyes entirely different from either of the first two groups.

In Table II an endeavor has been made to indicate in a compact manner the affinity or, perhaps better, the usability of the common classes of dyes in conjunction with the

fabrics which contain a combination of fibers of Classes A, B and C.

## Dyeing Properties of Regenerated Cellulose Type.

The dyeing of rayons of the regenerated cellulose type, namely, the cellulose nitrate, cuprammonium and viscose silks, presented no unusual dyeing problems even during their early days. To be sure, certain difficulties have arisen in dyeing these fibers and material

TABLE II

	Wool	Silk	Direct Cotton Colors	Sulphur Dyes	Vat Dyes	Basic Colors	Special Dyes SRA, etc.
Group A	++	++	++	+	+	++	+
Group B	++	++	++	+	+	++	+
Group C	++	++	++	+	+	++	+

different fibers. At the left will be found the fibers in accordance with our classification of Table I and across the table the common classes of dyes. The different classes of dyes are indicated by (+) signs are used, and where not usable (-) signs are used. The relative degree of usability is in some instances expressed by the number of (+) signs used.

In studying these tables it must be remembered that the general trend of the dyes as groups is recorded rather than absolute correctness as to each individual dye.

For instance, the action of acid dyes with acetate silk is put down as (-) although a very few acid dyes may be found that will dye this fiber. Again, the direct cotton colors with acetate silk are put down as (-). The actual facts of the case are that about 60 per cent of these dyes do not dye the fiber at all and the remainder for the most part only stain it on at the best dye it with difficulty. In the column marked Basic Dyes, their direct action is noted rather than their action in conjunction with a tannin mordant.

The important things to be observed upon this table are:

(1) That the fiber groups A, B and C act quite differently.  
(2) That the regenerated celluloses for the most part act the same as vegetable fibers.  
(3) That the acetate silks are in a class by themselves, acting quite differently from the animal and vegetable and regenerated cellulose fiber.

As a result of these differences it is possible to obtain two or even three color effects in the dyeing of

containing them, but these difficulties have been due to errors in mechanical manipulation rather than to lack of methods of dyeing.

Being in substance almost identical with cotton, these particular rayons may be dyed with the same dyes and in much the same manner. The dyeing properties of cellulose nitrate silk are the least like cotton of the three, but the reason for this is plain. When formed it is really a cellulose salt of nitric acid and if allowed to remain in this condition it would be closely allied as far as chemical classification is concerned to the acetate silk, which is in reality a cellulose ester of ethereal salt of acetic acid.

The process of rendering the cellulose nitrate silk non-inflammable commonly designated as denitrating converts this salt-like compound largely, although perhaps not wholly, into a form quite similar to the cellulose from which it was originally made. The dyeing properties of cellulose are therefore for the most part restored but not to the same extent as in the case of the cuprammonium silk which when finally finished is practically pure cellulose. This difference in the dyeing properties of cellulose nitrate silk is exhibited chiefly in its greater affinity for basic dyes. In fact, it is possible to dye the nitro silk directly and quite satisfactorily with certain selected basic dyes. To apply basic dyes to the viscose and cuprammonium silks a tannin mordant is essential. Even with the nitro silk better and faster colors are produced in conjunction with a tannin mordant.

Direct cotton colors and sulphur dyes are applied to all three of

these silks by methods similar to those of cotton dyeing. Lower temperatures are used, especially in the case of the nitro silk, and also a reduced percentage of Glauber or common salt. Alkali as well as sodium sulphide should be reduced to a minimum and caustic alkali entirely omitted if possible. The addition of sulphonated oils is also decidedly beneficial.

The vat dyes are also applied in a manner similar to that for cotton dyeing, that is, in an alkaline hydrosulphite reduction vat.

As is the case with cotton the acid dyes have no real affinity for the regenerated celluloses under any conditions and the mordant dyes only when used in conjunction with certain metallic mordants.

## Problems in Processing Acetate Silk.

The cellulose acetate silks, however, presented problems in dyeing which did not exist as far as the regenerated cellulose silks were concerned; in fact, it was found that this material acted entirely different from any other fiber. Its obstinacy, as you might call it, when it came to the absorption of dyes, led to the prediction on the part of some of the less visionary that it would never become extensively used as a textile fiber. About the only members of the regular list of dyes for which it showed any special attraction were the basic colors and these, of course, did not offer anything very promising as far as fastness was concerned. Most of the direct cotton colors showed little if any affinity and the acid dyes even less. Many of the existing dyestuffs were tried and by going through the whole list in an exploratory manner one would be found now and then that was an exception to the rule or which by some unusual or freak method might work with some degree of satisfaction. The so-called "cellutyl colors" were a specially selected group of such miscellaneous dyes.

One of the early attempts to solve the problem of dyeing acetate silks was the application of the principle of saponification or deacetylation to the cellulose acetate. It was found that by treating the acetate silk with caustic alkalies, hydrolysis took place and the fiber substance became almost identical with that of the regenerated celluloses. The saponified fiber immediately developed a marked affinity for dyestuffs and could be dyed with direct cotton, sulphur, vat, and other dyes in a similar manner to cotton. This method, however, proved to be decidedly impracticable, since it impaired some of the most valuable properties of the fiber, and the removal of the acetyl group necessarily brought about a great loss in weight. Furthermore it was difficult to carry out this hydrolysis uniformly and as a result uneven dyeing usually followed.

In some instances it was found that the addition of certain metallic salts facilitated the absorption of (Continued on Page 50)



# Cotton Mills--- Dobby Looms--- Rayon--- A profitable combination!

Admitting this, you may still hesitate to weave Rayon, fearful of insurmountable difficulties. However, others have not found the difficulties any more insurmountable than usually encountered in weaving a new fibre. Why not participate in the profits afforded by Rayon? We would be pleased to help you smooth out the rough places. Our long experience in weaving and manipulating Rayon enables us to do this.

It is not necessary to buy expensive winding machinery. We are prepared to deliver in all forms ready for the loom.

Give our service a trial and be convinced

## DUPLAN Silk Corporation

Commission Department

Southern Office

Johnston Building, Charlotte, N. C.

New York Office

135 Madison Avenue

—Mills—

Hazleton—Nanticoke—Dorranceton, Pa.



## Dyeing Artificial Silks or Rayons

(Continued from Page 48)

dyes and a number of patents were taken out covering their use.

Another important discovery was that acetate silk readily absorbed many amino bases as, for instance, aniline and some of its derivatives. Once on the fiber these amino bases could be diazotized and then developed with phenolic or naphtholic compounds, e. g., beta-hydroxy naphthoic acid, thus producing colored compounds or dyes within the fiber substance. As a result several series of suitable bases have been put upon the market under various trade names such as azonils, acedronols and azonines. The silks are also of this type.

Almost innumerable patents have been taken out for the dyeing of acetate silk, and Chas. E. Mullin in his exceptionally complete series of articles upon the dyeing of acetate silk which is being published in the American Dyestuff Reporter at the present time, gives with some detail no less than 135 methods for dyeing acetate silk, which have been described in the literature.

Notwithstanding this array of patents and processes it was not until those most vitally interested came to the realization that the problem of dyeing cellulose acetate could be satisfactorily solved only by devising special dyes or by producing some of the older dyes in a

considerably modified form that real progress was made.

### Special Dyes for Acetate Silks.

One of the earliest and most successful attempts to produce a new type of dye suited for this purpose was the introduction of the Ionamines by Green and Saunders (J. S. D. C., Jan., 1923, page 10). The solubility of the Ionamines is due to an external or omega sulphonic acid group which splits off gradually during the dyeing process, liberating the insoluble dye base which is readily absorbed by the fiber. The dye base thus formed may in many cases be diazotized and developed with phenolic or naphtholic derivatives, giving a wide range of colors of very good fastness. The introduction of the Ionamines was a step in the right direction, but their application involved complications which did not wholly appeal to the practical dyer.

The most important advancement as regards the dyeing of acetate silk was the introduction, about two years ago, of the so-called SRA colors. These solved to a great extent the problem of easily producing, by direct dyeing, a wide range of colors of excellent fastness in most respects. They were the result very largely of the study and investigation by Dr. G. Holland Ellis, and were produced under his supervision at the works of the British Celanese Company. The characteristic properties of these dyes are described by Ellis in an article, entitled "Dyeing by Colloidal Solubilization or Dispersion of Insoluble

Coloring Matters." (J. S. D. C., Sept., 1924; reprinted in the Am. D. R. Nov. 3, 1924.)

According to Ellis the SRA methods of dyeing are the results of the conception of a means not of chemical but of "physical solubilization," or better "colloidal dispersion" of the ordinary insoluble coloring matters in order to render them properly available to the fiber. This was successfully accomplished by the use of sulphoricinoleic acid (sulphonated castor oil), hence the characterizing name of SRA. It was found that when a ricinoleic-acid solution of a number of dyes and organic compounds ordinarily insoluble in water, was poured into water a dispersion of the particles took place which was so fine and so complete as to retain the characteristics of a water solution to such an extent as to pass freely through ordinary filter paper. Such colloidal dispersions may be neutralized and even made alkaline without apparently changing their character and from them acetate silk readily and uniformly absorbs the dye particles. Through exhaustive study and experimentation, also largely by the process of elimination, a series of dyes of remarkable fastness, brilliancy and range of coloring possibilities has been devised. They are all placed upon the market under the brand name of SRA colors\* in

\*The manufacturers of SRA dyes hold exclusive rights that permit their use only in conjunction with Celanese.

the form of 10 per cent pastes, in which are incorporated both the dye and the dispersing medium, in such a form that they may be used as readily as any soluble dye.

The process of application is extremely simple. The necessary amount of dye paste is added to a soap bath and heated to 75 to 80 degrees Cent., and the material worked in this until the dyestuff has been properly absorbed. The addition of Turkey Red oil facilitates the absorption of dye, and when dyeing heavy shades a moderate quantity of salt may be added to advantage. Many of the SRA colors may be dyed cold and the individual dyes may be mixed to almost any extent in the production of compound shades.

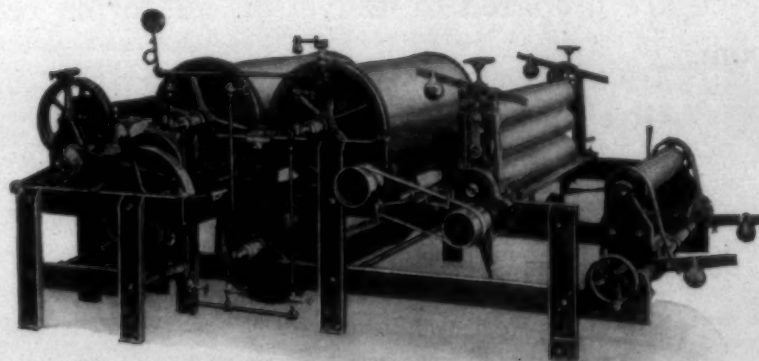
In addition to the direct dyeing colors of this group there are the SR Adiazo solamines, a series of amino bases or at least amino bodies capable of being diazotized. They are subject to colloidal dispersion through the same medium, sulphoricinoleic acid, and having been absorbed by the fiber from such a dispersion bath they are subsequently diazotized and developed.

The Duranol dyes of the British Dyes, Ltd., and the Celatine of the Scottish Dyes, Ltd., which are said to be sulphonated anthraquinone derivatives act similarly to the SRA colors. The Duranol dyes, however, are incorporated with a special dispersion medium quite different from the SRA colors but are applied by similar methods.

(Continued on Page 84)

# RAYON WARP SIZING MACHINE

Used and  
Recommended  
by  
Leaders  
in the Trade



Insures Uniform  
Sizing  
Drying  
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Tension

Warp Sizing Machine No. 81, Type M  
Patented June 2, 1925

No baking, stretching or breaking of ends  
Result—Increased Loom Production and Improved Quality Fabric

## CHARLES B. JOHNSON

Manufacturer Silk Finishing Machinery

10 Ramapo Avenue

Paterson, N. J.

Southern Representative: G. G. Slaughter, Charlotte, N. C.



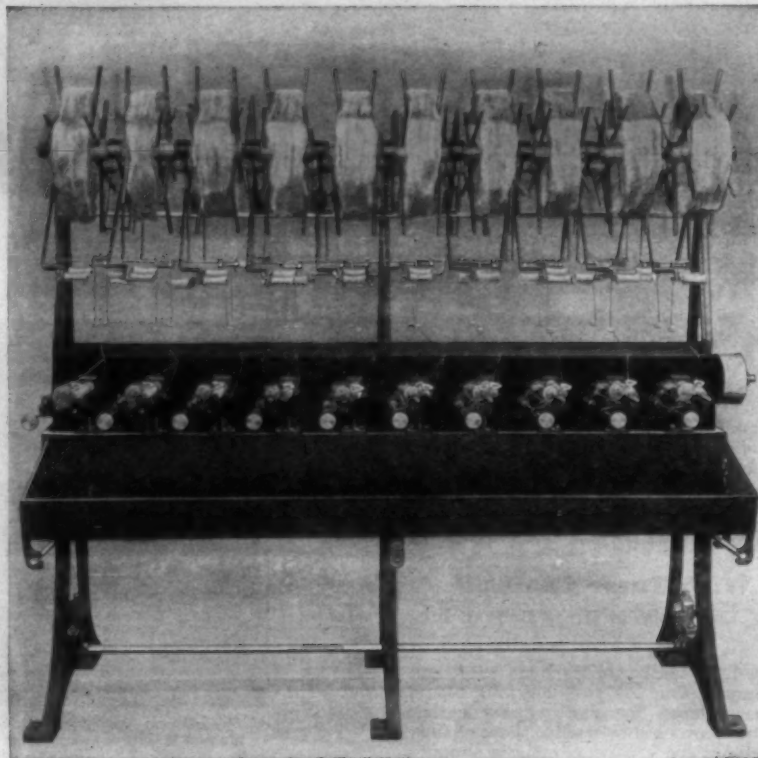
# RAYON

The Oswald Lever Company has for years specialized in the manufacture of winding machinery for Rayon. The benefits of these years of experience are at your disposal. Our representatives are always ready to assist you.

## *For Weaving---*

The Lever No. 40, High Speed Shuttle Bobbin Winder is the first in the history of the industry to make direct winding from skein to bobbin, absolutely practical. At a spindle speed of over 2000 R. P. M. it is winding all deniers and colors with equal ease and minimum yarn strain. Each spindle is a separate unit, easily detachable and leaving remaining spindles on production. The traverse is driven directly from the spindle. This eliminates slip-page, underwinds, and corkscrew wind. Whether winding from skein, spool, or other supply, there is a Lever tension to assure a uniform bobbin, which will not shell off in the loom. The machine

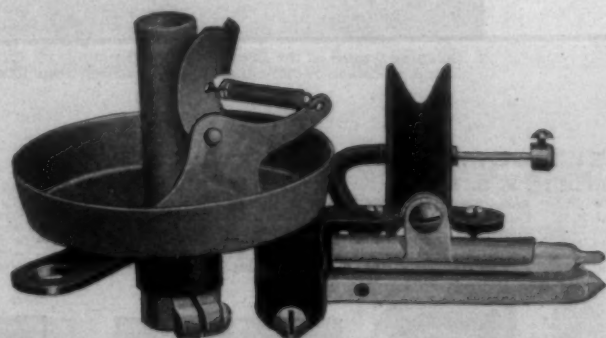
is built in 20 spindle units, 10 on a side. Less than  $\frac{1}{2}$  H.P. is required to drive a machine. Ball bearings throughout, lessen the load and add life.



## *For Knitting ---*

The Lever Bottle Bobbin Winder has long been known wherever Rayon is used for knitting. In one operation, it winds direct from skein to bobbin, applies an even emulsion, and cleans the yarn of all knots and slubs, without fuzzing or tearing the fibres. Wherever the yarn touches, including the cleaner, it floats back and forth over glass or porcelain, so as never to draw across one spot and cut in.

The cutting edge of the cleaner touches the yarn only to remove the bad spots. The Lever patent non-lift spindle guarantees that the light free turning builder cup can not rub or damage the yarn. Thousands of knitting machines supplied with Lever wound bobbins are proving these statements.



YARN CLEANER

OSWALD  
**LEVER**  
CO., INC.  
**PHILADELPHIA**

EST. 1880

11th and Cambria Sts. near North Philadelphia Station



# What Users Say About

## "The Ideal

## All Textile



7½-hp. Link-Belt Silent Chain Drives operating spinning frames at the American Spinning Company, Greenville, S. C. Cover of first drive removed to show chain.

### "Repay Their Cost Every Year,"

says Mr. Thomas A. Sizemore, Sup't American Spinning Co.

"Six years ago we changed over to electric drives and Link-Belt Silent Chain because of greater flexibility and other advantages. The installation of Link-Belt Silent Chain Drives on our spinning frames eliminated slipping of belts, increased our production 6%, and is saving us \$4,006.64 a year. At this rate the chains repay their cost every year."

### "Layups Are Unknown With These Chains,"

says Mr. Robert Calhoun, Chief Eng., John & James Dobson, Inc., Philadelphia.

"Most of our Link-Belt Silent Chains have been running since 1914, and in spite of overloads are still in fine shape. Our company has four plants in which Link-Belt Silent Chain has replaced line shafting and leather belts. Layups due to breaks of the drive are unknown with these chains. Their positive drive of individual machines and groups, eliminates slipping of belts, giving an increase in production. Link-Belt Silent Chain is standard with us."



7½-hp. and two 5-hp. Link-Belt Silent Chain Drives operating blanket spinning and six sets of mules at plant of John and James Dobson, Inc., Philadelphia, Pa.

### "Saves \$2700 a Year in Wages Alone,"

says Mr. E. C. Hatch, Gen'l Mgr., Brandon Mills.

"We have been driving our spinning frames with Link-Belt Silent Chains for 5 years. By eliminating the slip from our spinning frame drives, Link-Belt Silent Chain increased our spinning department production 3% and has saved us \$2700 a year in wages alone. Another advantage is that the constant speed produces better work."



Spinning frames at the Brandon Mills, Greenville, S. C. All these frames are driven by individual 7½-hp. Link-Belt Silent Chain Drives.

#### Textile Machines Driven with Link-Belt Silent Chain:

Cards  
Drawing Frames  
Roving Frames  
Slubbers  
Intermediates  
Sliver Lappers  
Ribbon Lappers  
Combers  
Ring Spinning Frames  
Twisters  
Mules  
Spoolers  
Winders  
Looms  
Mercerizing Machines  
Dyeing Machines  
Printing Machines  
Tenter Frames  
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Line Shafts

For over twenty years Link-Belt Silent Chain Drive has demonstrated its superiority over flat belts and gearing, in practically every industry. By actual test it is 98.2% efficient as a power transmitting medium.

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Boston - - - - - 49 Federal St.  
Buffalo - - - - - 745 Ellicott Square

Charlotte, N. C. - - - - -  
J. S. Cothran, 909 Com'l Bank Bldg.  
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Denver - - - - - 520 Boston Bldg.  
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Milwaukee - Room 1403 - 425 E. Water St.  
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Link-Belt Supply Co., 418 S. Third St.  
New Orleans - 504 New Orleans Bank Bldg.

PHILADELPHIA, 2045 Hunting Park Ave.

New Orleans - Whitney Sup. Co. Ltd., 733 Tchoupitoulas St.  
New York - - - - - 2076 Woolworth Bldg.  
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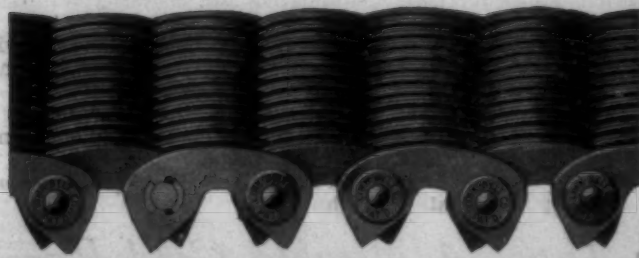
# LINK-BELT

## Efficient Silent Chain Drives For



# Link-Belt Silent Chain

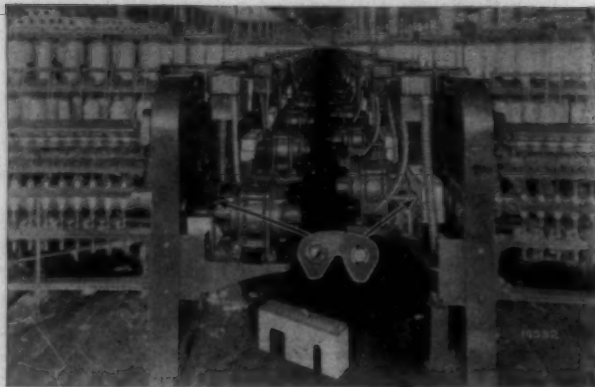
## Drive For



## Machinery"



General view of spinning room containing 99 5-hp. and 71 7½-hp. Link-Belt Silent Chain Drives, operating 170 spinning frames at the Woodruff Cotton Mills, Woodruff, S. C.



A battery of spinning frames at the plant of the Gainesville Mills, Gainesville, Georgia, where over 200 Link-Belt Silent Chain Drives are at work.



The Avondale Mills, Birmingham, Alabama, are using 176 Link-Belt Silent Chain Drives for the operation of their spinning frames.

### "Increases Efficiency of Our Workmen,"

says Mr. J. N. Smith, Sup't, Woodruff Cotton Mills.

"Link-Belt Silent Chain Drives on our spinning frames are saving \$3,443.09 a year, which repays their original cost in a little over a year. They have improved the quality of our product, reduced delays due to breakdowns, and increased the efficiency of our workmen by making the spinning room quieter and lighter. At times we have run 1½ years without changing the grease on a chain, and we have not had to replace any of the original chain."

### "Total Net Saving Amounts to \$5,244.48 a Year,"

says Mr. J. A. Sorrells, Sup't Gainesville Mills.

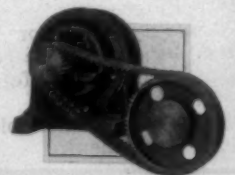
"Link-Belt Silent Chains pay for themselves every year. By eliminating slip they have increased our spinning room production 4%. They have reduced broken cylinder gears, saved electricity, and eliminated belt renewals. In five years of constant operation our repair labor bill has been only \$2.65, while total net saving amounts to \$5,244.48 a year."

### "Have Run 55 Hours a Week for 3 Years—No Repairs,"

says Mr. Z. H. Mangum, Sup't Avondale Mills.

"Three years ago, after we had investigated the advisability of changing our mills from steam to electric drive, we installed 176 Link-Belt Chains on 7½-hp. individual spinning frame motors. Although the Link-Belt Chains have run steadily 55 hours a week during this time, we have not spent one cent for repairs. The annual saving effected amounts to \$2,609.93 and has repaid the entire cost of the chain in less than 2 years."

It is made in all sizes, to suit all conditions, ¼ hp. to 100 hp. and over. Learn how you can use this positive, efficient, compact, and quiet drive in your plant, on your equipment. Send for our Data Book No. 125. Address our nearest office.



#### Drives Now Carried in Stock.

Link-Belt Silent Chain Drives, from ¼ to 10 hp., in almost any speed ratio from 1 to 1 up to 7 to 1, can now be obtained from stock from a Link-Belt Distributor near you. Send for Book 725, or name of your nearest distributor.

LINK-BELT LIMITED—Montreal, 10 Gauvin Lane; Toronto 2, Wellington and Peter Sts.

H. W. CALDWELL & SON CO.—Chicago, 1700 S. Western Ave.; Dallas, Texas, 810 Main St.; New York, 2676 Woolworth Bldg.

LINK-BELT MEESE & GOTTFRIED CO.—Fresno, Calif., 215 Brix Bldg.; Los Angeles, 400 E Third St.; Oakland, Calif., 526 Third St.; Portland, Ore., 67 Front St.; San Francisco, 19th and Harrison Sts.; Seattle, 820 First Ave., S.

# LINK-BELT

## Efficient Power Transmission



## Development in Loom Building

By the Crompton & Knowles Loom Works, Worcester, Mass.

**P**ERHAPS the most important development in box looms in the past fifteen years has been the automatic multi-color bobbin changing magazine and its accessory equipment. This situation is emphasized by the ever increasing realization that automatic looms, and particularly automatic drop box looms, are a necessity to reduce weaving costs and at the same time produce more and better cloth. The most convincing argument to prove the advanced state of the Crompton & Knowles automatic magazine is its widespread use in recent years on drop box silk looms.

To write a complete statement of loom improvements in the last fifteen years would result in a large volume because of the great variety of looms manufactured by Crompton & Knowles Loom Works and the many changes in each type. Instead, it will be interesting to take a few representative types of looms and motions and point out the changes which have taken place as indicating in a general way the advances which have been made in methods, materials, and construction.

As a general foreword, we want to emphasize the improvements in materials which are not as readily visible as changes in design. The introduction of special heat treatments, drop forgings, malleable iron, steel (both cast and pressed), and cast iron kept constantly under the watchful eye of a metallurgist has contributed largely to increased durability. Furthermore, methods of production have been improved so that uniformity is assured in quantity production, which is a valuable asset from the standpoint of supplies.

We will give below a very brief outline of the more important developments in the past fifteen years in certain representative types of looms and motions with, at the beginning, a general statement applying to practically all types.

### In General.

Improvements in materials and heat treatments.

Cut tooth gears.

The individual motor drive. A universal motor plate accommodates a number of different types of motors.

The automatic multi-color bobbin changing equipment.

The development of the wider looms in many classes, the list being headed now by a felt loom 500" between swords.

Cork insert friction clutch replacing a leather faced friction. Cork has a higher friction coefficient than leather.

### Silk Loom.

The Crompton & Knowles silk loom represents the highest type loom developed at the present time, this being due to the exacting requirements of silk weaving. Outside of the successful application of the automatic attachment we might note the following:

Roller bearings for crank shaft, bottom shaft, and rocker shaft, which by eliminating wear prevent

difficulties due to worn bearings and at the same time provide a very smooth motion.

Adjustable pipe lays words which provide lightness combined with strength and a convenient positive vertical lay adjustment.

Shock absorbing crank connectors which absorb the protection blow.

Improved double shipper mechanism—a convenience in operating wide looms.

Outside take-up drive with wide pick range.

Ratchet release for lower cloth roll which is a convenience in unwinding cloth.

Removable lower cloth roll.

Looms of this type are built up to 90" between swords and the construction is such that in the wider widths a speed is possible which will equal a narrower loom of the older type.

### Narrow Fabric Loom.

Wider looms with greater shuttle capacity which increase the production per loom.

Heavy looms with head motion at each end which allows dividing the harnesses for weaving two patterns and distributing the load of a heavy lift.

Timing coupling for end cam harness motion drive, allowing timing of harnesses without use of set screws.

Self contained friction drive to eliminate end thrust.

Planetary dwell gears adapted for heavy work.

Wax treated shuttle blocks which lubricate and reduce changes from atmospheric conditions.

Oilless bushings for shuttle driving pinions; a self lubricated bearing.

Improved circular shuttle block sticking for wider face pinions.

Ball bearing rack rod to reduce friction.

Lay adjustable on swords for angle of shuttle and reed.

Swivel pad let-off friction lever for equalizing the tension on both beam heads.

Individual winders for light and heavy webs to take large roll.

Special take-up for curved collar fabrics.

### Carpet Looms.

Improved wide seamless Axminster carpet loom, the maximum width being 12 feet or 16-4. This loom runs faster and produces less waste than the earlier type.

Improved 12-4 or 9 foot seamless Wilton loom.

### Duck Looms.

The Crompton & Knowles special extra heavy duck loom. This is the heaviest type of duck loom and is built up to 290" between swords. It has been developed to meet a growing demand for wide press cloth fabrics.

Improved automatic shuttle changer recently developed to handle shuttles either 19", 22", or 27" long.

A creel friction let-off which provides for letting back after a pick out and establishing afterwards the original tension on the warp before starting up.

### Warp Stop Motion.

The Crompton & Knowles mechanical warp stop motion of the Regan type. Multiple banks for different requirements.

### Filling Stop Motion.

Center stop motion adjustment moved near the end of the lay for accessibility in fixing.

Improved forks and grids.

Crank type brake knock-off used with center stop motion.

### Filling Detectors.

Refinements in double contact feeler No. 4.

### Dobbies.

General improvements in design and strength.

Two piece rack, pressed steel

hook lever, and drop forged hooks. Dobby fingers with slotted bearing.

Auxiliary cylinder or No. 16 multiplier for handkerchief weaving.

Pick and pick multiplier in combination with two weave adjustment.

### Jacquards.

Brass bushings in frame bearings.

Fibre faced cylinder hammer eliminating the necessity for oiling this part.

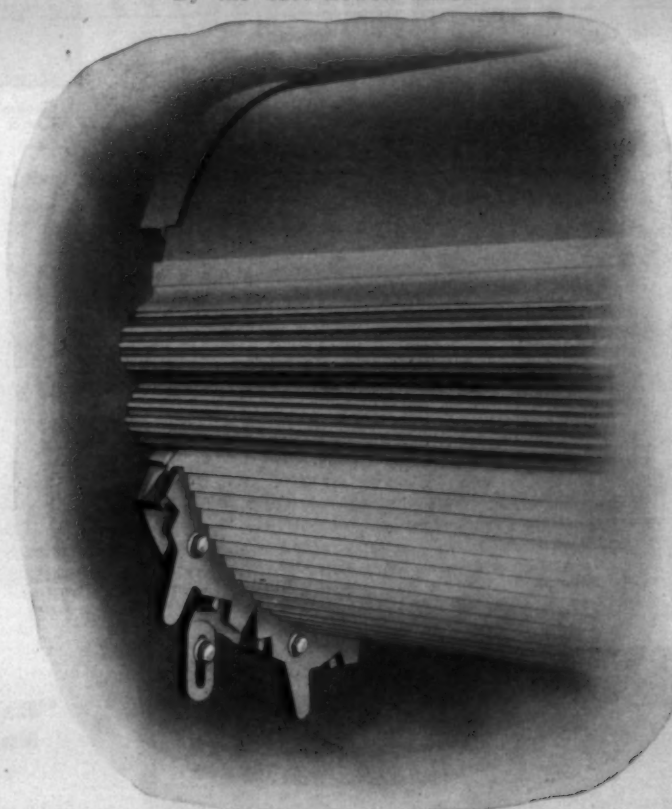
The adaptation of the all wire jacquard to carpet looms in place of the knotted cord type.

The size of the latter makes it impossible to use several machines over one loom.

Wire link at the bottom of upright.

## New Type Adjustable Grid Bar

By the Saco-Lowell Shous.



New Type Adjustable Gridbars  
(Patented)

**I**N the effort to improve the cleaning of cotton in the picker, the tendency has been to eliminate any excessive beating which might injure the fibre. The developments of recent years have afforded greatly increased opening facilities in the shape of bale breakers, tandem feeders, vertical openers and horizontal cleaners.

The results have been very satisfactory, but there has still been a great amount of foreign matter left in the cotton to be removed by the cards. With a view to bringing about increased cleaning under these conditions, we have recently developed a new type of grid, together with a new design cheek, which has proven superior in every way over any previous design of which we know.

The bars are of smaller sections and are so designed that the air currents drawn between them by the fan are at their minimum in-

tensity at the outer edge of the bar and increase in intensity very rapidly as they approach the working edge. This arrangement permits the heavy foreign matter to be knocked out through the strongest part of the air current beyond which the intensity is too low to draw it back. During this part of the cycle there is very little chance of any useful fibres being knocked out.

The grid bars (which are protected by patent) are fully adjustable, the adjustment being such that the working edge of the bar is held at constant distance from the beater at any stage of setting. In the case of the 16-inch diameter beater the number of bars has been increased from nine to sixteen, with all bars fully adjustable and arranged in two sets of eight bars each, instead of the four adjustable and five fixed bars which we had in the old type cheeks. Each set of

(Continued on Page 74)



# ***OIL Spraying—***

## **THE BRETON MINEROL PROCESS**

**(PATENTED)**

is a system of adding to the fibre, lubrication other than that which is natural to it. This added lubrication properly adjusted to suit the fibre being treated, the particular mechanical methods used in spinning, and the purpose for which the yarn is to be used; results in the following advantages:

1. The cotton cleans better.
2. The cotton cards better with a better web.
3. The cotton draws and twists to make a uniform yarn.
4. Better sanitary conditions obtain in the mill.
5. The fire hazard is materially reduced.
6. The actual production of yarn is increased.
7. The "invisible" losses are materially smaller.

## **BORNE SCRYMSER COMPANY**

*Established 1874*

**17 Battery Place, New York**



## The South Making Rapid Progress in Textile Specialties

By David Clark.

ONLY a few years ago the textile manufacturing of the South was confined very largely to yarns, sheetings, print cloths, ginghams, plaids, plain hosiery and other staple goods, and very few people realize the extent to which specialty weaving, knitting, bleaching, dyeing and processing have entered this section during the past few years.

Not only have many mills changed from sheeting, print cloths and ginghams to silk and rayon mixtures but small weaving plants are being established, many of which have been moved from the North.

The following are some of those recently established:

Perkins Mill, Anniston, Ala., 20 looms on ladies' dress goods.  
Bremen Looms, Inc., Bremen, Ga., 65 looms on fancy colored weaves.  
Georgia Webbing and Tape Co., Columbus, Ga., 42 looms on tapes.  
Crolley Mfg. Co., Elberton, Ga., 12 looms on rugs and novelties.  
Valley Waste Mills, LaGrange, Ga., has established a rug manufacturing department.  
McLin Textile Mills, Rome, Ga., 76 looms on filter bags and laundry nets.  
Jarnell Cotton Mills, 144 looms on bag cloth.  
Louisville Textile Corp., Louisville, Ky., 60 looms on marquise curtains.  
Levens Mfg. Co., Burlington, N. C., 160 looms on rayon mixture dress fabrics.  
Farber Mfg. Co., Charlotte, 20 looms on tapes.  
Go-Lin Mills, Charlotte, 150 looms on towels.  
Scandinavia Belting Co., Charlotte, 40 looms on cotton belting.  
Earl Stohn Co., Charlotte, 60 looms on coutils and jacquard specialties.  
Stuart Mills, Charlotte, N. C., 60 looms on silk goods.  
Veritas Silk Mills, Charlotte, N. C., 40 looms on broad silks.  
Fobarton Mills, Concord, N. C., 116 looms on novelty dress goods.  
Warborough Mills, Inc., Durham, N. C., 100 looms on rayon and silk mixture dress goods.  
Fann-Moore Mills, Franklinton, N. C., 140 looms on towels.  
Gastonia Weaving Co., Gastonia, N. C., 30 looms on woven labels.  
Southern Silk Mills, Greensboro, N. C., 30 looms on broad silks.  
Southern Webbing Mills, Greensboro, N. C., 342 shuttles on elastic webbing.  
Linetta Mills, Grover, N. C., 40 looms on novelty bedspreads.  
County Moore Mills, Hemp, N. C., 150 looms on dress goods.  
Millerest Mills, High Point, N. C., 40 looms on silk goods.  
Marshall Field Co., Leaksville, 12 looms on axminster carpets.  
Port Cloth Mills, Lowell, N. C., 600 looms on silk and rayon mixtures.  
Marshallville Mfg. Co., Marshallville, N. C., 4 looms on tire cord.  
Warlick Mfg. Co., Newton, N. C., 100 looms on dress goods.  
T. Baker & Co., Roxboro, N. C., 160 looms on plushes and velours.  
Somerset Mills, Roxboro, N. C., 40 looms on upholstery cloth.  
Cleveland Cloth Mills, Shelby, N. C.,

150 looms on silk and cotton novelties.  
Horn Co., Spindale, 44 looms on silk and cotton bedspreads.  
Lola Gingham Mills, Stanley, N. C., 350 looms on fancy dress ginghams.  
Beacon Mfg. Co., Swannanoa, N. C., 200 looms on cotton blankets.  
Capel Rug Mills, Troy, N. C., 3 looms on rugs.  
Appalachian Weavers, Tryon, N. C., 7 hand looms on novelties.  
Waldensian Weavers, Valdese, N. C., 200 looms on cotton and rayon, fancy draperies.  
Lad-Lassie Mills, Anderson, S. C., 300 looms on lad-lassie cloth.  
Moore Mills, Cowpens, S. C., 32 looms on bedspreads.  
Derry Damask Mills, Gaffney, S. C., 40 looms on mercerized damask.  
Piedmont Plush Mills, Greenville, S. C., 25 looms on plush.  
Southern Weaving Co., Greenville, 22 looms on non-elastic webbing.  
Blue Ridge Mills, Landrum, S. C., 32 looms on wide novelties.  
Shamrock Damask Mills, Landrum, S. C., 60 looms on damask and bedspreads.  
Southern Worsted Corp., Minter, S. C., 120 looms on worsteds.  
Loudon Mills, Sumter, S. C., 13 looms on cotton and wool mixtures.  
Gloria Textile Corp., Johnson City, Tenn., 200 looms on velvets and corduroys.  
Dan City Silk Mills, Danville, Va., 120 looms on broad silks.  
Stuart Mills, Stuart, Va., 12 looms on cotton blankets.

There are spinning and weaving mills that make goods similar to the above and many plain goods mills that have changed over to rayon, silk and cotton mixtures, but the above list gives a picture of the small specialty weaving plants recently established.

Hosiery and underwear manufacturing has made more progress than any other form of textiles and many Southern knitting mills are now making the finest grades of silk and rayon hosiery, while quite a few have installed full fashion machines.

Braiding has also become a feature in such towns as Granite Falls, N. C., and among the recently installed braiding plants are the following:

Carroll Mills, Carrollton, Ga., 70 machines.  
Hickory Lace Braiding Co., Hickory, N. C., 250 machines.  
Southern Fabric Mills, High Point, N. C., 150 machines.  
Icard Cordage Co., Icard, N. C., 240 machines.  
Insulating Yarn Co., Charlotte, N. C.

The pioneers in the mercerizing of cotton yarns the dyeing and processing of cotton, rayon and silk yarns were the American Yarn and Processing Co., of Mt. Holly, N. C., and the Southern Mercerizing Co., of Tryon, N. C., but the growth of the knitting industry and the establishment of specialty weaving plants has caused the establishment of the following:

National Yarn and Processing Co., Rossville, Ga.  
Belmont Processing Co., Belmont, N. C.  
Southern Dyeing Co., Burlington, N. C.  
Elmore Co., Spindale, N. C.  
Spinners' Processing Co., Spindale, N. C.  
Southern Franklin Process Co., Greenville, S. C.  
Salember & Villette, Charlotte, N. C.  
Lily Mill & Power Co., Mercerizing Plant, Lawndale, N. C.  
Central Franklin Process Co., Chattanooga, Tenn.  
Dixie Mercerizing Co., Chattanooga, Tenn.  
Standard-Coosa-Thatcher Co., Mercerizing Plant, Chattanooga, Tenn.  
The Viscose Co., Roanoke, Va.

The following manufacturers of rayon have also established large plants for its manufacture in the South:

Dupont Co. at Nashville, Tenn.  
Bemberg Corp. at Johnson City, Tenn.

For a number of years the South has had the following cloth bleaching and finishing plants: Lanett Bleachery and Dye Works, West Point, Ga.; Crystal Springs Bleaching Co., Chickamauga, Ga.; Union Bleaching, Greenville, S. C.; Kerr Bleaching and Finishing Works,

Concord, N. C., and the Yadkin Finishing Co., Yadkin, N. C.

There have also been large bleaching and finishing plants in connection with mills at West Durham, N. C., Kannapolis, N. C., Spray, N. C., Danville, Va., and other points.

In recent years many other mills have added bleaching and finishing departments, and the following independent plants have also been established:

United States Finishing Co., Cedar-town, Ga.  
Yates Bleachery, Elintstone, Ga.  
Sek-Reliance Corp., Louisville, Ky.  
Sayles-Biltmore Bleachery, Biltmore, N. C.  
Proximity Print Works, Greensboro, N. C.

Hanes Dye and Finishing Co., Winston-Salem, N. C.  
Gregg Dyeing Co., Graniteville, S. C.  
Pacific Bleachery, Lyman, S. C.  
Southern Bleachery, Taylors, S. C.  
Lowell Bleachery, South, Griffin, Ga.

Jos. Bancroft & Sons, of Wilmington, Del., have purchased a site at Old Fort, N. C., and will soon erect a large bleachery.

The remarkable progress which the South is making in specialty weaving, knitting and braiding, as well as in mercerizing, dyeing, finishing and bleaching is very gratifying to those who believe that diversification will be an aid to prosperity.

### Hopedale Mfg. Company Improves Product

(By Geo. O. Draper, Vice-President, Hopedale Manufacturing Co.)

THE Hopedale Manufacturing Company was organized to carry on improvements in the art of weaving under the auspices of Jonas Northrop, and Clare H. Draper, of Hopedale, Mass. They succeeded to the C. F. Draper Company, which was founded by General Wm. F. Draper and Charles F. Roper, after leaving the Draper Company at the time of the split in the management. Associated with Messrs. Northrop and Draper was F. E. Norcross, another old employee of the Draper Company, and later George Otis Draper and Randolph Crompton, well known to the textile trade, have joined the forces.

Starting in a modest way to manufacture automatic attachments for old looms, a field in which there was no competition at that time, it broadened out by placing a complete automatic loom on the market in the spring of 1919. Commencing with a medium weight model it added on a heavy weight sheeting loom, and has recently developed a full line for silk, woolen, and worsted looms.

In the cotton line it recently introduced a marked improvement in a high-speed model, which instantly won recognition.

Since January first of this year, the company has shipped complete silk looms of two different models; has heavy woolen looms being assembled, both for gem head and high speed dobby harness in addition to carrying through work on

ent, Hopedale Manufacturing Co.)

high speed and standard cotton looms. It has inaugurated a special dobby department, and has several hundred of these dobbies already in operation.

It manufactures its own temples complete with rolls set by automatic machines. It makes its own drop wires; in fact, it covers a larger field for weaving requirements than some of its larger competitors.

Up to date it has changed over some 40,000 old looms, making them complete in automatic equipment, and has sold over 15,000 new automatic looms.

The capitalization has increased from an original \$10,000 to nearly \$800,000 of issued stock. Its plant was originally in Hopedale, Mass., but the main business was moved to Milford, although the Hopedale plant is still in use. The original Milford plant has been tripled in size.

No other cotton machinery concern has shown so rapid an expansion within the like period.

The output of looms per unit of capital or unit of plant is far in excess of that of any other builder. The owners claiming that this is due to the fact of having the plant under personal control of active officers with the advantage of a one floor construction and with men trained in the art. The personnel includes four well known loom inventors with an average of thirty years each of building automatic looms.



**NATIONAL DUROL BLACK BA  
A FAST BLACK  
FOR WOOL AND SILK**

**T**HIS product possesses the same good qualities as its prototype, especially in regard to fastness to light and washing. It is recommended for knitting yarns, and wherever dyeing is accomplished without the use of chromium mordants.

Product samples may be obtained from any of our branches.

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Philadelphia  
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Toronto

**NATIONAL DYES**





# What's New in Leather Belting

By J. R. Hopkins

Advertising Manager Chicago Belting Company, Pres. Engineering Advertisers Association, Vice-Pres. National Industrial Advertisers Association, Member Research Committee Leather Belting Exchange

ANSWERING the question "What's new in leather belting?" the best thing about leather belting is the realization of how very much leather belting has been improved in recent years.

With the development of improved equipment for the electrical mechanical transmission of power leather belting has kept pace. This is known to those engineers who have made it their business to find out but it is not as generally known and appreciated as it should be.

Leather belting of today—the leather belting is what I am referring to—is a very materially improved product over the belting a generation ago—using the old generation in its briefest interpretation.

Some leather belt drives have been replaced with individual motors but in turn some individual motors have been replaced with leather belt drives. Even large manufacturers of electric motors recommend that wherever machines in a line and can be operated on a line shaft that is not too long, that the group drive with one motor is better than the many individual motors. Even where the same is followed—where individual motors are applied to every machine in spite of the additional cost and additional maintenance charges, one out of every two of these motors has a belt from the motor to the driven machine.

Chain drives—were you in line with the equipment changes of the nation's manufacturing plants—you would see many belt drives being replaced with chain drives and many chain drives being replaced with belt drives. We believe that the belt drives are the cheaper—give the same or more production—and are much more economical. If you want to use at the lowest possible cost, leather belt drives are unequalled by a majority of all drives.

Now buyers take into consideration the improvements in the best leather belting today.

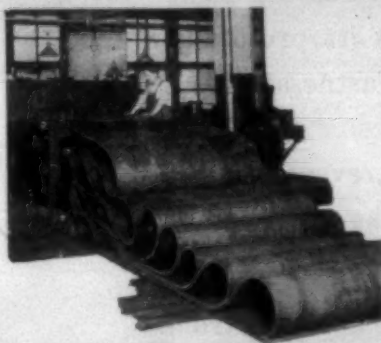
Progress has largely been brought about by an increased knowledge of engineering side of leather belt transmission. This knowledge has been principally contributed to by Research Fellowship of the Leather Belting Exchange at Corvallis. Every buyer of belting and manufacturer of belting has benefited by this research, a certain advertiser in this paper to the contrary notwithstanding.

American manufacturers have accepted the principles developed by the Leather Belting Exchange that leather belting quality is subject to comparative tests and can be tested. Replacing of leather belting on a group basis has been resisted by the leather belt manufacturer. A product would not stand the tests.

Chicago Belting Company

had test apparatus for some years but it was not until three years ago that their present system of applying tests to every manufacturing operation in belt making was inaugurated. Since that time this testing and watching of every operation has been accompanied by a constant and steady increase in the quality of the product.

This increase has been quite remarkable. And today the product is so far advanced over what was considered as the best leather belting of three years ago that it is



almost like a new product. In fact, so marked has been this increase that it seems safe to predict that those manufacturers of belting who do not apply the test method of manufacturing to their own belt making will be forced to before long. That is quite a radical statement but I firmly believe it is so. I do not mention it as the opinion of my company—I mention it as my own personal opinion.

For instance, three years ago the tensile strength average of Chicago Belting leather belts was 4,650 pounds per square inch. That topped the field at that time—perhaps it still does—for oak leather belting. Today, however, our belts are averaging 1,000 pounds per square inch more than that. Today our oak leather belts have a higher tensile strength than chromes or special tannages.

This increase has been accomplished with the finest of all oak belting butts using center stock only. The side cut leather belts we make have a tensile strength still higher, as side cuts have more strength than center cuts.

Together with this increase in tensile strength we have lowered our stretch and increased the pliability. A lower stretch means fewer take-ups—less time out for shortening the belts. The higher tensile strength plus the lower stretch and increased pliability mean a distinctly higher quality belting. These belts last longer—and cost less because they last longer.

Nor is that all. Our surface adhesion to the pulley has been increased. We have developed our curries to where we have a higher percentage of leather fibre per

pound. Our grease content averages about 11 per cent—while some competing belts still run as high as 18 to 20 per cent and over. You pay \$1.70 per pound (approximately) for leather belting—and from 7 to 10 cents per pound for grease. Currying is put in to lubricate the belt—all belts have to have currying—including chrome. We put in the scientifically right amount without loading.

It is recognized among plant maintenance men that a margin of safety in the rating of plant equipment is a good thing. If you have a machine rated at 10 H.P. the equipment should stand up under whatever possible overloads continuous operation of that machine will bring about. It is poor economy to buy equipment whose rating is limited to the 10 H.P. a continuous operation of the machine will bring about certain times when the load will exceed the 10 H.P.



This margin of safety calls for belts with a margin of overload that will always exceed the demands made on the belt. Such belts at the old rating would cost more but they would wear so much better that they would last longer and be a saving.

The new Chicago Belting leather belts, made by the pre-tested method, provide that margin of safety without additional cost, for these belts cost no more than any good leather belt costs.

The other new feature in leather belting has been the development of special belts for special work. In this class is our Yarnmaker, a belt with all of the finest qualities of oak belts, with increased tensile strength, less stretch and a far greater pliability. In addition, the surface adhesion has been greatly increased and the workmanship and the leather itself are the very cream of belt making. This belt is for spinning frame drives only, and was originated and named by Southern textile mills. In fact, it is the Southern textile industry's own baby and we are very proud of it.

Nor do I wish to conclude without mentioning the successful application of group drives in Southern textile mills. This method of

driving is without a peer where the machines are grouped. It is less expensive to install, less expensive to maintain, and less expensive to operate. It also gives just as much or more production than individual motors.

In this connection it is well to remember that many companies replace an old machine that has a low production capacity and that was driven by a belt with a new machine with a high production capacity driven by a motor. In these cases the increase in production is due to the machine and not the motor. The same new machine with a modern pre-tested leather belt drive would give the same production and have the same efficiency.

We are glad to have had an opportunity of being in this issue. We consider the Southern Textile Bulletin as the superintendent's own paper and use it to convey our official messages to superintendents of Southern textile mills. We wish them all a very successful year in 1926.

## British Spinning Restriction

Manchester, Eng.—Annual report of Federation of Master Cotton Spinners' Association emphasizes difficulties in American section of the cotton trade, and says that in opinion of the committee making the report the only practical remedy was to follow the example set by other trades and regulate production according to demand. The committee further says, however, that immediately there was the slightest suggestion that cotton spinners were regulating their output it appeared to be an opportunity for British labor leaders and certain sections of the press to accuse the cotton spinner of bolstering up fancy margins.

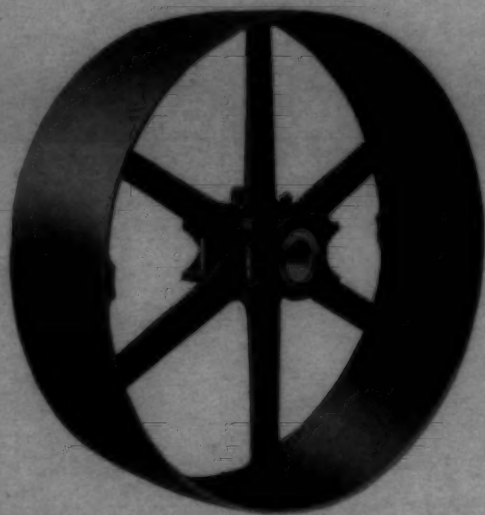
Continued trade depression and loss of business is ascribed primarily to competition of Japan, which has been able to overcome largely the competition not only of Lancashire but of India itself. The committee says: "As long as Japan is enabled to enjoy the unfair advantage of producing on the basis of a 20-hour day working week it is difficult to see how Lancashire can possibly hope to restore her supremacy in the Far Eastern markets."

Of other causes ascribed for the depression, one is the internal disorder in China, although reopening of the Shanghai auctions should result in improvement. The Indian market shows larger decrease in takings of Lancashire cotton goods. Yet the Indian native spinning and manufacturing industry has also suffered a slump in its own market.

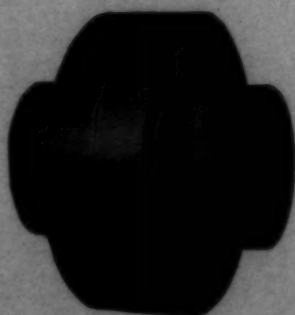
The committee says all causes of the unprofitable trade could not, however, be ascribed to international competitors. With a bumper crop and the price down to 10d a pound, better trade should be experienced.



# The Right Step to Power Transmission Savings

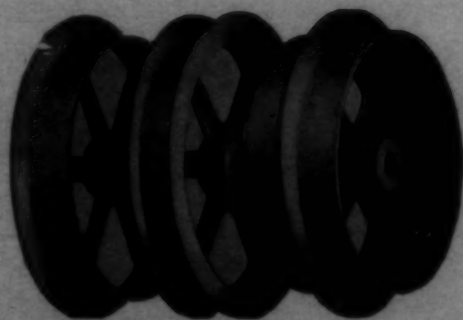


In the purchase of any one of The T. B. Wood's Line of Power Transmission Appliances you purchase a certificate of quality that has been established through 69 years' experience manufacturing power transmission appliances.

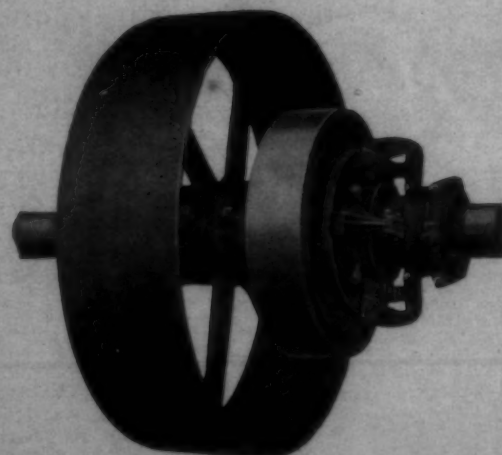
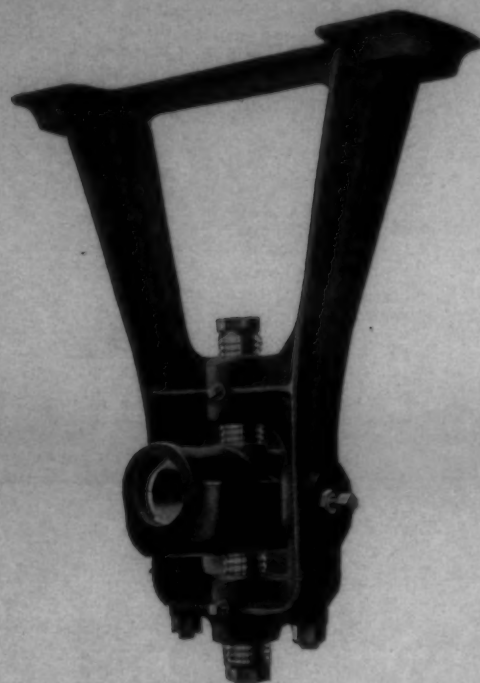


Built to the rigid lines of correct engineering principles, each T. B. Wood's Product has that sturdy, substantial appearance that means dependableness and durability.

The T. B. Wood's Line of Power Transmission Appliances is built to endure. When you specify the "U. G." line you write an insurance policy against future power transmission troubles.



There's a Wood's Dealer in your town, or near you. On that next order call him up. Flexible Couplings, Motor Pulleys, Speed Reducers, Cast Iron Pulleys and Hangers, Friction Clutches and the U. G. Automatic Belt Contactor for Short Center Drives.



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# Letters of Congratulation

THE following letters of congratulation upon the Fifteenth Anniversary of the Southern Textile Bulletin are received with much interest and appreciation. Many other letters were received too late to appear in this issue:

On this, the fifteenth anniversary of the "Bulletin," I wish to congratulate you on the growth and continued increasing influence and power of the "Bulletin." I also want to take this opportunity to express to you my thanks and appreciation for your untiring and successful efforts in the interest of our great industry and its employees. The owners and employees of Southern cotton mills are indebted to you beyond measure for your courage and effective work in their interest for the past fifteen years.

May the "Bulletin" continue to prosper and grow in influence, and may our Southern cotton mills continue to give you their whole hearted support and encouragement in your work in their behalf.

P. E. GLENN,  
Sec. and Treas. Exposition Cotton Mills, Atlanta, Ga.

It gives me pleasure to commend your efforts in behalf of the textile industry, especially of the South both with regard to class legislation directed against the industry and its people and, lately, your effort to inject a little common sense into the managers of some of our yarn mills. This is a fruitful field for further efforts and I wish you the utmost success and promise my continued support.

T. SCOTT ROBERTS,  
Pres. Adelaide Mills, Anniston, Ala.

I note with interest that your readers may expect the pleasure on March 4th of a special issue of the Bulletin representing your fifteenth anniversary number, and I feel that you are to be congratulated on having accomplished much good in the past fifteen years for the textile industry both in regard to labor and capital connected with this industry; and I wish for you many more years of success, which I of course realize means continued hard work and sacrifice.

I would especially like to go on record in expressing my appreciation of valued aid rendered the cotton mills and their employees by your Mr. David Clark, who is in my judgment an untiring worker and fighter when he knows he is right, and who has made many personal sacrifices for the good of a cause which meant much to the textile industry.

Sincerely yours,  
LEWIS D. BLAKE,  
Treas. Belton Mills, Belton, S. C.

I have noted with interest the part which David Clark has taken in behalf of the mills. His efforts for us were to our advantage, both

Mr. David Clark, Editor,  
Southern Textile Bulletin,  
Charlotte, N. C.

Dear Sir:

Heartiest congratulations and best wishes to you on this, the Fifteenth Anniversary of the Southern Textile Bulletin.

From the standpoint of real service rendered to the Southern textile industry, your work looms up like the majestic sun—throwing out constantly the light of truth, upon the development and progress of our people, our product and our plants.

May the years to come bring in abundance well deserved happiness and prosperity.

Sincerely your friend,

W. J. VEREEN,  
President American Cotton Manufacturers' Association,  
Moultrie, Ga.

in the fight against the Federal Child Labor Laws and his attacks upon the union organizers in the South. I assure you we appreciate very much the work the Southern Textile Bulletin and Mr. Clark has done for us, and is continuing to do.

With best wishes for a continuance of your past success, I am,  
G. R. HOOPER,  
Supt. Clover Mills Co., Clover, S. C.

Please accept our heartiest congratulations on this, your fifteenth anniversary. May we at this time express in some small measure sincere appreciation for the splendid work of your able, fair and fearless editor, Mr. David Clark, in furthering the best interests of the textile industry and through your columns bringing about a better understanding and closer co-operation between all those engaged in this great industry.

Wishing you all possible continued expansion and success which you so well deserve.

J. M. GAMEWELL,  
Genl. Mgr. Erlanger Cotton Mills Co.,  
Lexington, N. C.

We are interested in learning that you will issue a fifteenth anniversary number on March 4th and we are taking this opportunity of writing a word of appreciation of your publication and of your editor.

We feel that Mr. Clark has shown himself to be a good friend both of the employers and employees in the cotton mills of the South through his editorial career, and this feeling of friendship to all and the desire to protect the textile industry in the South for the benefit of all has been the motive behind his activities.

We feel that your Bulletin is an excellent textile paper and it stands very high in the estimation of those who read it.

With all good wishes for your future.

K. P. LEWIS,  
Asst. Sec. and Treas.  
The Erwin Cotton Co., Erwin, N. C.

Moultrie, Ga.,  
March 4, 1926.

and efforts extend in an ever-increasing ratio.

Yours very truly,  
J. C. SAUNDERS,  
Consolidated Textile Corp., Bonham,  
Texas.

We note that your March 4th issue, which will be your Fifteenth Anniversary Number, is to contain a comprehensive survey of the past fifteen years in the textile industry of the South.

It is with extreme satisfaction that we offer our compliments not only for a successful past, but with a sincere trust in the future.

Every cotton manufacturer as well as every operative should appreciate to the fullest extent the consistent and untiring efforts of your managing editor, David Clark, in his honest and fearless labors in their behalf. The foundation upon which he has built the Southern Textile Bulletin cannot be anything but lasting and profitable to all who read it.

The people of Fort Mill look forward to the weekly editions and the number of readers is continually growing.

We are for your success.  
Yours very truly,  
GEO. FISH,  
Gen. Mgr., Fort Mill Manufacturing Company, Fort Mill, S. C.

Many happy returns for your valuable paper. I always read it with much interest and pleasure.

CAMERON McRAE,  
Southern Representative Arabol Manufacturing Company.

Congratulations and best wishes on the Fifteenth Anniversary of the Southern Textile Bulletin. Your able management of the Bulletin has made it one of the strongest and most influential textile papers of the country, and your splendid editorials are read with the deepest interest everywhere by owners, workers and the public at large.

JAS. P. GOSSETT,  
Pres. Williamston Mills, Williamston, N. C.

Seldom does one get credit for anything special that he has accomplished until he has passed on, but I believe it should be otherwise. The mills as a whole fully appreciate what you through the Bulletin have done for the textile industry of the South, but few probably stop long enough to tell you about it.

You have been active in carrying both of the Federal Child Labor Laws to the United States Supreme Court, where they were declared unconstitutional. When the Federal Child Labor Amendment to the Constitution was submitted to the States, you organized a successful campaign against its ratification, and spent probably six or eight months of your time to defeat it. You have consistently fought all efforts to unionize the cotton mill operatives of the South, because you believed that it was against the best interest of the operatives, themselves, and by your editorials you

I notice in the Textile Bulletin that you are to celebrate your Fifteenth Anniversary Number on March 4th.

We wish to congratulate you on the wonderful growth your Bulletin has made during these fifteen years. We also want to commend you upon the impartial efforts which Mr. Clark has put forth in the interest of the mills and operatives. He has done a wonderful lot of good for the mills and operatives, by fighting foolish legislation and labor organizers.

Wishing the Bulletin and Mr. Clark many more happy and useful years of service for the textile industry.

Cordially,  
J. R. DONALDSON,  
Supt. Harmony Grove Mills, Commerce, Ga.

I have been a subscriber for the Textile Bulletin for a number of years and consider my week's work unfinished unless I have read my Bulletin. Personally, I believe the Bulletin and Mr. Clark have done more for the Southern cotton mills than 90 per cent of the mill men have accomplished themselves.

Yours very truly,  
O. L. WAGSTAFF,  
Supt. Amazon Cotton Mills, Thomasville, N. C.

We are pleased to see that you will issue the Fifteenth Anniversary Number of the Southern Textile Bulletin on March 4th, and this issue will contain a very comprehensive survey of the past fifteen years in the textile industry of the South.

The Southern Textile Bulletin has rendered signal service to the textile industry, and David Clark, through the Bulletin has done as much or more than any other agency that we know of to defend and promote the textile industry in the South. We appreciate this service, even though we are in the outside rim of the textile territory.

We hope the Bulletin may continue in the future and its influence



have done much to bring about the spirit of friendliness and co-operation that today exists between the Southern cotton mill operatives and mill managers.

In many other ways you have endeavored to render service to aid in the upbuilding of the textile industry of the South, of which we are justly proud.

I merely wish to give an expression of my appreciation of the excellent service which you and those with you have rendered.

Yours very truly,

P. B. PARKS,  
Asst. Mgr. Erwin Cotton Mills Co.,  
West Durham, N. C.

On the occasion of the fifteenth anniversary of the Southern Textile Bulletin, I congratulate not only the Bulletin but also the editor, David Clark, upon the success that has followed both since its first issue.

Not only because it is one of the foremost and liveliest textile papers published in the country, but also because of its constant and untiring endeavor to render service to the textile industry.

The efforts put forth and the results accomplished by David Clark during the time the Federal Child Labor Laws and the Federal Amendment to the Constitution were before the country, is now history, but the memory of work well done will always stand out as an example for the future.

Yours very truly,

WM. C. RYCKMAN,  
Supt. Lane Cotton Mills Co., New Orleans, La.

It is a pleasure to note your anniversaries as they come along, and particularly this fifteenth one. We congratulate you on the success you have met. Success does not come to all who labor like it has to you. From our viewpoint, your work is accepted and approved; not only this, but respected and honored.

May you and your kind be permitted to continue through many, many more years.

Yours respectfully,

C. P. THOMPSON,  
Supt. The Trion Co., Trion, Ga.

In looking over last week's Bulletin I got to thinking how long I had been reading the Bulletin and the things the Bulletin had done for the textile industry of the South. In March, 1911, I was boss carder for the Knoxville (Tenn.) Cotton Mills and received a sample copy of the Bulletin, I think, dated March 4, 1911, and have been a regular subscriber up to this writing. I think that David Clark has done more to bring about the spirit of friendliness and cooperation that exists between the operatives and the mill managers today than any other man in the South.

Also, Mr. Clark played a big part in defeating all the Federal Child Labor Laws. There is not a man in the South that the superintendents and overseers have any higher regard for than they do for David Clark, editor of the Southern Textile Bulletin.

Wishing you and your paper fifteen years more of success. With

best regards from the writer, I beg to remain,

Yours very truly,

G. L. MEACHAM,  
Supt. Diamond Cotton Mills Co., Inc.,  
In anticipation of your Fifteenth Anniversary Number, it affords me great pleasure to endorse, not only the Southern Textile Bulletin, but in particular David Clark, its able editor.

The Textile Bulletin stands very high in the regard of those connected with the textile industry, and Mr. Clark has shown rare judgment as your guiding spirit. He has invariably taken a fair and broad gauged position on all vital questions confronting the industry, and has rendered valuable service on many important issues by consistently advocating what was fair and just.

He has labored consistently to bring about an attitude of helpful co-operation among those in the industry, and has been most helpful in creating the proper attitude on the part of the public in general toward the industry.

With very kind regards, and wishing for Mr. Clark and the Textile Bulletin continued success, I am,

Yours very truly,

S. M. BEATTIE,  
Pres. and Treas. Piedmont Mfg. Co.,  
Piedmont, S. C.

We notice that there is going to be issued the Fifteenth Anniversary Number of the Southern Textile Bulletin, and it is a pleasure to say that in our opinion Mr. Clark has been of untold benefit to the manufacturing industry by his candid stand against unjust laws against manufacturing industries and his positive manner of handling same.

The industries owe him a debt of gratitude for the part which he took in defeating the last Child Labor Amendment and unless Mr. Clark or some other man of the same ability and character had taken the stand we would now be working under child labor law run by the Federal government.

We hope for the continued success of the Bulletin.

Yours very truly,

L. D. PITTS,  
Pres. and Treas. Industrial Cotton Mills Co., Rock Hill, S. C.

We and all our people here appreciate the efforts made by Mr. Clark during the past fifteen years in behalf of the South, Southern cotton mills, both owners and operatives, and feel confident he has been very helpful in a general way to all concerned.

Yours very truly,

R. A. WILLIS,  
Treas. Manetta Mills, Lando, S. C.

We understand that March 4th is the fifteenth anniversary of the publication of your good textile paper and we wish to say on this occasion that we consider this one of the best textile papers on the market. The news comes to us in a condensed form and this within itself appeals to every business man. We feel sure that all of the Southern mills will join us in thanking David Clark for the efforts which he has put forth in behalf of our

industry. We know that it was mainly through his efforts that the former Federal Child Labor laws have been defeated and he has done everything possible to keep out the so-called labor union from our midst. He has been fair and square in all his editorials and we think that the mill operatives appreciate him and his paper as much as the officials.

Wishing for this paper many more years of prosperity and good work, we beg to remain,

Yours truly,

W. M. HAGOOD,  
Pres. and Treas. Glen and Pickens Mill, Easley, S. C.

Having learned that your March 4th issue will be the Fifteenth Anniversary Number of the Southern Textile Bulletin, the writer wishes to take this opportunity to express his gratitude toward the Southern Textile Bulletin for the benefits personally derived from this magazine.

He also wishes to commend your Mr. David Clark for his interest shown in the textile industries in the South in all phases.

With kindest regards to your Mr. Clark, we are,

Yours truly,

WM. H. JONES,  
Mgr. Valley Mills, LaGrange, Ga.

It is our wish that your birthdays are many, many more.

David Clark, your managing editor, has been of great value to the textile business—particularly so to the Southern mills. His activity against vicious laws affecting the textile industries in our country, and at the same time spread publicity which served to open the eyes of a great many people who were biased and prejudiced as a result of propaganda spread by child labor committees and their agents.

We feel that because of Mr. Clark's activity there is today a better feeling and a better understanding toward the cotton mill business and what cotton mills are doing for their people.

We wish to congratulate you upon your fifteenth anniversary — and wish you continued prosperity.

Regards,

Yours very truly,

J. S. BACHMAN,  
Supt. Anchor Duck Mills, Rome, Ga.

We understand that you are celebrating your fifteenth anniversary March 4th, next. Therefore, we wish to take this occasion to congratulate you on your growth and achievement during this period.

Most especially would be like to extend our felicitations to your editor, Mr. David Clark, who has played such a prominent part in advancing the textile industry of the South.

With all good wishes, I beg to remain,

Respectfully yours,

G. W. CAUSEY,  
Treas. Pomona Mills, Inc., Greensboro, N. C.

We find Clark's Directory of Southern Textile Mills useful and interesting. Our help and room bosses read the Southern Textile

Bulletin, and we know of no higher recommendation that can be given.

We appreciate the work of Mr. Clark, also this opportunity to say so.

Very truly,

RIGNAL W. BALDWIN,  
Pres. Marion Mfg. Co., Marion, N. C.

It is with much interest that I note you have reached your fifteenth anniversary. I think congratulations are in order.

The writer has been a reader and subscriber of the Textile Bulletin for more than fourteen years. My good friend, John L. Fonville, now superintendent of the Cheraw Mills, gave me a year's subscription as a Christmas present fourteen years ago and I have been taking the Bulletin since.

The Southern Textile Bulletin has consistently rendered valuable service to the textile industry, always taking the right stand whether it be for or against the mills or mill owners, and I think the Southern people as a whole, not only mill owners and workers in the mills, should feel justly proud of having a textile paper whose ultimate thoughts are equity to all.

The following might be in order at this time:

Here's to the Southern Textile Bulletin,

Here's to we mill men;  
May we live a thousand years,  
And they live a thousand years and a day,

For who can take care of our troubles when they are taken away?

Wishing you continued success in your good work, we beg to remain,

Yours very truly,

W. KEIGHLEY,  
Supt. Berryton Mills, Berryton, Ga.

We take this opportunity of thanking you for your magnificent journal, as we consider the Southern Textile Bulletin, and David Clark an asset to the cotton manufacturers of this section, and not only this section but also all over the U. S. A., for we conscientiously believe that Mr. Clark and his paper have done more for the upbuilding of the cotton manufacturers' interest in this section than any other journal or individual we know of, as he has been untiring in his efforts in every way in looking out after the mill interest of the South.

The stand he has taken in regard to Child Labor law has always been fair and square to the child of the South protecting the child's interest, and lending his assistance to the mills in helping carry same out.

Mr. Clark's activities in regard to the Federal Child Labor Laws, and his standing up for State rights, we thought exactly right, as we agree with Mr. Clark that the State is entitled to some privileges and rights of its own, and it would be a crime for the Federal Government to usurp the few State rights that were left, as we believe, as 'most loyal American citizens that States have rights, and they should not be interfered with, so long as they are within reason, and no publications should be made that reflect on same until they are carefully looked into, and the truth brought out, as the



truth does not hurt, and we have always found that Mr. Clark dug for the truth in matters of this sort, and took a fair stand in his journal and looked very carefully into both sides before he jumped.

We cannot say too much in praise of Southern Textile Bulletin, and the benefit it has been to the mills of the South, and the benefit that Mr. Clark has been to the South-land.

Wishing you and your journal unbounded success and much happiness and pleasure in your work.

Yours very truly,  
H. R. BERRY,  
Sec. and Treas. Rome Hosiery Mills,  
Rome, Ga.

We note that you are celebrating the fifteenth anniversary of the Southern Textile Bulletin, and take this occasion to express our very genuine appreciation of the work which you have done, both through your columns and through personal work, in connection with adverse Federal Child Labor legislation and in resisting efforts to union agitators to destroy the cordial relations existing between Southern mill operatives and mill managers.

With personal regards and heartiest well wishes for your continued success,

Cordially yours,  
JNO. A. LAW,  
Pres. Saxon Mills, Spartanburg, S. C.

I notice that you are to issue an Anniversary Number for the fifteenth year of publication of the Southern Textile Bulletin, and as I have been a reader of your paper since the first issue, I wish to congratulate you on the success that you have attained in publishing the leading textile paper in the South. I wish also to thank you for the principles for which you have stood and for the frank and candid manner in which you have presented them to the public.

I believe the country at large appreciates more today than ever, the constructive work of the Southern textile industry, not only from an industrial and commercial standpoint but the great good that it has done for the improvement of citizenship and the promotion of the educational interest of the country, and I wish to give you credit for having done a great deal toward bringing these things about.

Wishing you continued success, I am,

Yours very truly,  
MARSHALL DILLING,  
Supt. A. M. Smyre Mfg. Co., Gastonia, N. C.

As a subscriber and regular reader of the Southern Textile Bulletin from the very first issue of the paper, we have watched closely the work done by its editor, David Clark, for and in the interest of the cotton mill industry of the South.

He has been the most zealous friend we have ever had, in fighting for our best interests and defending us against many slanderous accusations, and the cotton mill interests of the South owe him a debt of gratitude that he will never be able to pay.

He has shown an indomitable

We congratulate you upon the fifteenth anniversary of the publication of the Southern Textile Bulletin.

Surely the Bulletin will continue to grow in usefulness and prosperity under the leadership of its editor whose untiring efforts in behalf of the Southern textile industry have been productive of such splendid results.

With best wishes for success, we are,

Yours very truly,  
E. J. McMILLAN,  
Vice-Pres. Standard Knitting Mills,  
Knoxville, Tenn.

courage, that few of us in the mill business would have shown, in fighting for the rights to which the textile interests of the South are entitled.

My hat comes off to David Clark and the Textile Bulletin in appreciation of their splendid work! May their shadows never grow less!

M. W. DARBY,  
Gen. Mgr. and Treas. Cherry Cotton Mills, Florence, Ala.

I note that you will be celebrating your fifteenth anniversary on March 4th, and that you will get out an Anniversary Number covering the progress that has been made in the textile industry of the South within the fifteen-year period.

We who remember the first number of the Textile Bulletin can look back and think of the changes that have taken place during this period.

As the writer sees it along manufacturing lines we have made progress, along other lines, especially "marketing," we have much to learn, although at the last meeting of the American Manufacturers' Association machinery was put in motion to keep the public posted as to the amount of stock of each construction on hand, and we predict, if this is properly carried out, and if the officers of this Association are given the proper co-operation, it will be worked out to where it will be a big help to our industry.

Your editor, Mr. Clark, has been very active in many of these projects that have been for the interest of the Southern manufacturers. We all know how he fought the Federal Child Labor Law, and we say, without fear of contradiction, had it not been for his untiring efforts this law would have now been in force, and while the writer, as well as many others, didn't seriously object to the law, we did object to the Federal Government controlling matters that should be controlled entirely by each State, and the false impression the department agents tried to leave of mill conditions.

This is only one of the many items that Mr. Clark has been able to do worlds of good through the Bulletin.

He has, in his editorials, explained fully his opinion of all subjects that have for their object the advancement of the cotton industry, and even those who disagree with him cannot help but admire his fighting spirit for what he thinks is right.

The writer doesn't hesitate to say that Mr. Clark has done and is still

doing a great work for the textile industry, and we manufacturers are indebted to him for his untiring efforts in our behalf, and we want you to know that we appreciate his efforts and always carefully read each issue of the Bulletin.

We know that this Anniversary Number will be a success, and we hope that the Bulletin will continue to grow from year to year.

With best wishes and kindest regards, beg to remain,

Yours very respectfully,  
J. H. MAYES,  
Gen. Mgr. Fitzgerald Cotton Mills,  
Fitzgerald, Ga.

We note in your last issue that on March 4th you will issue the Fifteenth Anniversary Number of the Southern Textile Bulletin, which will contain a survey of the past fifteen years in the textile industry of the South.

The writer wishes to take this occasion to thank you for the good work you have done for the textile industry of the South through the aid of your paper.

The Southern Textile Bulletin has consistently endeavored to render service to the textile industry and is credited with having accomplished satisfactory results in a number of instances.

Your Mr. David Clark was very active in carrying both of the Federal Child Labor Laws to the United States Supreme Court where they were declared unconstitutional and when the Federal Child Labor Amendment to the Constitution was submitted to the States he organized the successful campaign against its ratification and for eight months devoted most of his time to defeating it.

He has consistently fought all efforts to unionize the cotton mill operatives of the South, because he has believed that it was against the best interest of the operatives themselves, and by his editorials has done much to bring about the spirit of friendliness and co-operating that today exists between the Southern cotton mill operatives and mill managers.

In many other ways he has endeavored to render service and to aid in the upbuilding of the textile industry and we believe that your Bulletin has been a great factor in accomplishing these results.

With kindest regards and assuring you that your good work for the past fifteen years for the textile industry has been duly appreciated by the writer.

Very truly yours,  
S. W. DUGGAN,  
Treas. Knoxville Cotton Mills, Knoxville, Tenn.

I note with interest that you will on March 4th issue the Fifteenth Anniversary Edition of the Southern Textile Bulletin, and write to congratulate you on the success which has attended your interesting and informing magazine.

The Textile Bulletin has been of great benefit in an educational way to the employees of our Southern cotton mills, and in that magazine, as well as by your personal efforts, you have protected their interest and disproved the often cruel mis-

representations of the actual conditions in our Southern cotton mill villages, and I am glad on behalf of those I represent to tender you our sincere thanks and assure you of our appreciation for all you have done for us.

Yours truly,  
ELLISON A. SMYTH,  
Pres. Belton Mills, Belton, S. C.

Please permit me to say that I read with a good deal of interest the announcement that you would issue your Anniversary Number of the Southern Textile Bulletin on March 4, 1926. Fifteenth year.

I have read this publication for several years and I "get to myself" much knowledge" from its pages.

We are told that in years that have passed it was a custom in China to bury money along with a dead body. We laugh at this heathen custom, perhaps saying that it does the dead Chinaman no good, and yet our custom of waiting until a friend dies to place a wreath of flowers that very soon fade and die is but a little better than the Chinese custom. I think that most of us would want our friends to remember us with at least a few flowers after death, but all of us would appreciate a few flowers while we live.

One of the greatest needs of the world today is a better understanding of each other's problems and a more intimate association with our fellow man. We are, I think, making some progress along this line, thanks to our Civic Clubs and Men's Clubs of our churches, and we are now offering encouragement to and interest in each other in a notable degree. We are passing the flowers along while there is life.

In keeping with the sentiment expressed above I want to congratulate you upon achieving such a notable success in editing and publishing the Bulletin, making it as it is, the best publication of its kind that it is my pleasure to read. And to also thank you for every effort you made to keep the textile business free from agitators and Federal interference.

Trusting that you may live to see many more anniversaries of the Bulletin and with best wishes,

Am yours very truly,  
H. GILMER WINGET,  
Supt. Winget Yarn Mills Co. and  
Victory Yarn Mills Co., Gastonia,  
N. C.

Having learned that you will soon issue your Fifteenth Anniversary Number, the writer cannot refrain from expressing his sincere congratulations, not only for the very honorable history that you have made during this period but also for the distinguished service that you have rendered to the entire textile industry of the South, as well as for the personal work that has been done by Mr. Clark in defending the interest of this great industry and for promoting the well being of its operatives as well as its management.

No doubt it is a source of gratification to you that your paper is universally recognized both for its friendly and sympathetic discus-



sions of all problems pertaining to the industry, as well as the leading place that it has taken in insisting upon modern and progressive methods, all of which I believe deserves the appreciation and commendation of your readers.

With every good wish for your continued success, and kindest personal regards,

Yours very truly,

H. R. FITZGERALD,

Pres. and Treas. Riverside and Dan River Cotton Mills, Danville, Va.

We wish to congratulate you on your fifteenth anniversary. We believe we have been a subscriber for practically the entire period, and have watched your growth with a good deal of interest. The vigorous editorial policy of the paper has always appealed to us, and we have especially admired Mr. Clark's attitude toward the various problems that have come up from time to time, touching the welfare of both the mill owner and the employee. We have always considered him eminently fair to both sides, and believe that he has done a great deal to bring about better mill conditions in the South, and closer and more harmonious relations between employer and employee.

We hope you will continue to grow and prosper.

Sincerely yours,

P. H. HANES, JR.,

Pres. P. H. Hanes Knitting Co., Winston-Salem, N. C.

We are glad of an opportunity upon the celebration of your fifteenth anniversary to extend our congratulations and best wishes to one who has been so energetic in sponsoring the interests of the Southern textile industry. Your efforts have been beneficial to the management and employees alike.

We wish you many years of continued prosperity and usefulness.

With kindest regards, we are,

Yours very truly,

FRANK S. DENNIS,

Mgr. Consolidated Textile Corp., Union Division, Lafayette, Ga.

Want you to know that all of us here at the mill appreciate the work you have done toward rectifying the public mind as to conditions in our mills. Most of the adverse criticism in the East I know was because of lack of knowledge of the true facts and the publicity you have given the matter will eventually win over all real thinkers North and South.

Yours very truly,

W. P. HAZLEWOOD,

Mgr. Adelaide Mills, Anniston, Ala.

I am advised that on March 4th you will issue the Fifteenth Anniversary Number of the Southern Textile Bulletin, and for practically all these years I have been a subscriber to this publication.

I have noted with pleasure your outstanding work in the interest of the textile industry of the South and its people. You have not spared your time, talent, or money in fighting to a successful issue all of the Federal Child Labor propositions in the interest of our Southern manufacturers and their employees and

in every other way you have stood in the forefront as a leader in our Southern textile industry.

I sincerely wish for you and your publications many more years of usefulness and greater continued success.

Yours truly,

F. C. GRADDICK,

Supt. Barrow County Cotton Mills, Winder, Ga.

I notice in your paper that March 4th is the Bulletin's fifteenth anniversary, and I wish to say I have been a constant reader during these years and have found something helpful in each issue.

I want to congratulate Mr. Clark, the editor, on the clean paper he has given us during the past and trust that he may continue as its head for many years to come, and if he does, I know the interest of the Southern mills will be taken care of.

With best wishes for the Bulletin and its office force, I beg to remain,

Very truly yours,

GEO. P. STONE,

Revolution Cotton Mills, Greensboro, N. C.

We wish you to know that we very much appreciate your activities and usefulness to the textile industry generally, and particularly in the South.

We regularly read and consider your Southern Textile Bulletin an excellent publication.

Yours very truly,

BENJ. RUSSELL,

Pres. Russell Mfg. Co., Alexander City, Ala.

Representing Mr. Sizemore and the American Spinning Company, I want to commend your issue of the 4th of March of your Fifteenth Anniversary Number of the Textile Bulletin, as we know from previous issues that it will be worth while.

In this connection, we want to express our appreciation of the various and wonderful help that the Bulletin has been to the mills of the South; but for Mr. Clark I think they would yet be in the muddle with the child labor conditions in many sections of the country.

Wishing you and your efforts great success, I am,

Yours very truly,

J. H. MORGAN,

Pres. American Spinning Company, Greenville, S. C.

I note that you are to get out your Fifteenth Anniversary Number on March 4th. I think I read the first paper you printed and have been reading them regularly since that time. I have enjoyed reading the Bulletin very much, having always found it to contain valuable and interesting information. I, too, have always appreciated very much the personal interest David Clark has taken in behalf of the mills whenever the opportunity presented itself.

Wishing you many more prosperous anniversaries, I am,

Very truly yours,

W. P. HAMRICK, Gen. Mgr.

Pacific Mills, Hampton Dept., Columbia, S. C.

I take pleasure in expressing my feeling that David Clark through his generous untiring efforts and skillful management in connection with legislative and legal work directly and indirectly related to the Child Labor propaganda, has performed a service to industry in general, and particularly to the textile industry, of such extended and fundamental character that the beneficial results are inestimable. Perhaps a better way to put it would be that he has not done the work which he has done the detrimental effects which would have resulted would have been inestimably harmful.

Yours very truly,

K. S. TANNER,

Pres. Tanner Group of Mills, Spindale, N. C.

Having heard you are preparing for your Fifteenth Anniversary Number, I wish to take this opportunity to congratulate the Bulletin on its birthday and to wish you many happy returns of same.

I hardly know what we would do without the Bulletin. It has certainly been the one magazine that we could fall back on with our troubles, knowing that its most practical editor, David Clark, would always come to the rescue.

Several years ago many textile operatives thought Mr. Clark was siding with the mill presidents because he did fight the foreign element that was trying to sap the life blood of the Southern textile operatives, but now we believe that the major portion of the operatives in the South realize that Mr. Clark was right and is their best friend.

Mr. Clark has also taken a personal interest in the Southern Textile Association and has been one of its most valuable members, having given of his time, and I am quite sure it was often at personal expense to further the interest of the Association, and I believe that the majority of superintendents and overseers in the South join me in wishing every success to the Southern Textile Bulletin in the good work it is carrying on.

Yours very truly,

F. GORDON COBB,

Gen. Mgr. Lancaster Cotton Mills, Lancaster, S. C.  
Secretary Southern Textile Association.

We understand that on March 4th you are going to have a birthday party and that you will be fifteen years old. It is with much pleasure that we extend to you congratulations and thanks for the efforts that you have so unselfishly given of to the Southern textile industry. Our wish is that you may enjoy a long life and prosperity and that you will continue to be the right hand of the industry in the years to come.

With kind regards,

Yours truly,

W. S. NICHOLSON,

Treas. Excelsior Mills, Union, S. C.

Anniversaries should be happy occasions and also a season of thoughtfulness, a season of review of the past and we are very glad to felicitate your journal and your

editor on this, your fifteenth anniversary.

Mr. Clark had a good purpose when he entered the field of journalism and I think we all feel that he has been faithful to that purpose. He has aroused some enmity but I think even his enemies will admire his courage and his fairness.

With best wishes for many more years of useful service, we are,

Yours very truly,

DONALD COMER,

Vice-Pres. Avondale Mills, Birmingham, Ala.

I note in last week's issue of the Southern Textile Bulletin that the March 4th issue will be your Fifteenth Anniversary Number of this paper.

Please accept my congratulations and best wishes for yourself and the Bulletin, as I can unhesitatingly say that you, with your paper, have done more for the textile industry of the South than any other magazine published within the last fifteen years. I have had the pleasure of recommending your paper to the advertisers on several occasions, as I believe your paper is more thoroughly read than any other paper by the mill officials, as well as the inside operatives.

Wishing you the continued success in the future that you have had in the past, I am,

Very truly yours,

A. H. COTTINGHAM,

Gen. Mgr. Victor-Monaghan Co., Greenville, S. C.

It gives me great pleasure to say anything I can for the efforts which have been made by David Clark in promoting the textile mill industry of the South.

Being a native North Carolinian, I was very familiar with Mr. Clark's work up in "God's Country" before moving to Alabama several years ago, and the labor conditions and other mill conditions which exist in the Southern mills, which the managers and owners should be proud of, is due largely to Mr. Clark's efforts. I feel sure as long as we have the encouragement like he gives we need not fear any trouble from labor unions; and I think all mill executives in the South should appreciate the services which he has rendered for the past fifteen years, and I assure you, as one of them, I do.

Yours very truly,

W. F. STROWD,

Vice-Pres. and Treas. Buck Creek Cotton Mills, Inc., Siluria, Ala.

As the fifteenth anniversary of your paper draws near we feel that without saying one word of congratulation to the Southern textile industry for being so well blessed with such a medium for our defense and enlightenment it would be criminal negligence upon any Southern industry. We have been subscribers of the Southern Textile Bulletin since its first publication, and we have always admired Mr. Clark in all his works, writings and character, in his defense of the cotton mill industry of the South. We do not wish to try to exaggerate or

(Continued on Page 74-a)



## Growth in Spindles and Looms

(Continued from Page 26)

Growth in Spindles and Looms				1911		Belmont		1926	
(Continued from Page 26)				Spindles Looms		Spindles Looms		Spindles Looms	
1911		1926		Chronicle Mill		Chronicle Mill		Chronicle Mill	
				Imperial Yarn Mills		Imperial Yarn Mills		Imperial Yarn Mills	
				Majestic Mfg. Co.		Majestic Mfg. Co.		Majestic Mfg. Co.	
								Acme Spinning Co.	
								Climax Spinning Co.	
								Crescent Spinning Co.	
								Eagle Yarn Mills	
								Linford Mills, Inc.	
								National Yarn Mills	
								Perfection Spinning Co.	
								Sterling Spinning Co.	
								Stowe Spinning Co.	
				Osage Mfg. Co.		Osage Mfg. Co.		Osage Mfg. Co.	
				Atlas Mfg. Co.		American Cot. Mills, Inc.		American Cot. Mills, Inc.	
				Huss Mfg. Co.		Gambrell & Melville Mills		Gambrell & Melville Mills	
				Mascot Cotton Mill Co.		Co.		Co.	
				Smith Cotton Mill Co.		George Cotton Mills		George Cotton Mills	
				Francis Cotton Mills		Aileen Mills, Inc.		Aileen Mills, Inc.	
				Transylvania Cotton Mill Co.		Sapphire Cotton Mills		Sapphire Cotton Mills	
				Brookford Mills		Brookford Mills		Brookford Mills	
				Aurora Cotton Mills		Aurora Cotton Mills		Aurora Cotton Mills	
				Bellevue Mills Co.		Elmira Cotton Mills Co.		Elmira Cotton Mills Co.	
				Elmira Cotton Mills Co.		Glenco Mills		Glenco Mills	
				Glenco Mills		Burlington Mills, Inc.		Burlington Mills, Inc.	
				Holt, E. M., Plaids Mills		Consolidated Tex. Corp.		Consolidated Tex. Corp.	
				Lakeside Mills		Holt, E. M., Plaid Mills		Holt, E. M., Plaid Mills	
				Williamson, Jas. N. & Sons Co. (Hopedale Mills)		Lakeside Mills		Lakeside Mills	
				Williamson, Jas. N. & Sons Co. (Ossipee Cotton Mills)		King Cotton Mills Corp.		King Cotton Mills Corp.	
				Williamson Mfg. Co.		Stevens Mfg. Co.		Stevens Mfg. Co.	
				Odell, J. M. Mfg. Co.		J. M. Odell Mfg. Co.		J. M. Odell Mfg. Co.	
				Henrietta Mills		Henrietta Mills No. 2		Henrietta Mills No. 2	
				Cedar Falls Mfg. Co.		Sapona Cotton Mills		Sapona Cotton Mills	
				Worth Mfg. Co.		Penn. Textile Mills, Inc.		Penn. Textile Mills, Inc.	
				Durham Hosiery Mills		Durham Hosiery Mills		Durham Hosiery Mills	
				Lloyd, T. F. Mfg. Co.		4 and 7)		4 and 7)	
				Atherton Mills		Atherton Mills		Atherton Mills	
				Chadwick-Hoskins Co.		Chadwick-Hoskins Co.		Chadwick-Hoskins Co.	
				Elizabeth Mills		Elizabeth Mills Co.		Elizabeth Mills Co.	
				Highland Park Mfg. Co.		Highland Park Mfg. Co.		Highland Park Mfg. Co.	
				Magnolia Mills		Magnolia Mills		Magnolia Mills	
				Mecklenburg Mfg. Co.		Mecklenburg Mfg. Co.		Mecklenburg Mfg. Co.	
				Savona Mfg. Co.		Savona Mfg. Co.		Savona Mfg. Co.	
				Charlotte Cordage Co.		Barber Mfg. Co.		Barber Mfg. Co.	
				Continental Mfg. Co.		Co-Lin Mills		Co-Lin Mills	
				Fidelity Mfg. Co.		Holly Mfg. Co.		Holly Mfg. Co.	
				Howell, Geo. A. & Sons		Johnston Mfg. Co.		Johnston Mfg. Co.	
						Robinson Spinning Co.		Robinson Spinning Co.	
						Carl Stohn, Inc.		Carl Stohn, Inc.	
						Stuart Mills		Stuart Mills	
						Veritas Silk Mills		Veritas Silk Mills	
				Cherryville Mfg. Co.		Cherryville Mfg. Co.		Cherryville Mfg. Co.	
				Gaston Mfg. Co.		Gaston Mfg. Co.		Gaston Mfg. Co.	
				Howell Mfg. Co.		Howell Mfg. Co.		Howell Mfg. Co.	
				Melville Mfg. Co.		Wildan Mfg. Co.		Wildan Mfg. Co.	
				Vivian Cotton Mill		Vivian Spinning Co.		Vivian Spinning Co.	
						Carlton Yarn Mills, Inc.		Carlton Yarn Mills, Inc.	
						Rhyne-Houser Mfg. Co.		Rhyne-Houser Mfg. Co.	
				Patterson Mfg. Co.		Patterson Mfg. Co.		Patterson Mfg. Co.	
						China Grove Cotton Mills		China Grove Cotton Mills	
				Clayton Cotton Mill		Clayton Cotton Mills		Clayton Cotton Mills	
				Liberty Cotton Mill Co.		Liberty Cotton Mill Co.		Liberty Cotton Mill Co.	
				Cliffside Mills		Cliffside Mills		Cliffside Mills	
				Enterprise Mfg. Co.		Enterprise Mfg. Co.		Enterprise Mfg. Co.	
				Brander Cot. Mills Corp.		Renfrew Mfg. Co.		Renfrew Mfg. Co.	
				Brown Mfg. Co.		Brown Mfg. Co.		Brown Mfg. Co.	
				Cabarrus Cotton Mills		Cabarrus Cotton Mills		Cabarrus Cotton Mills	
				Cannon Mfg. Co.		Cannon Mfg. Co.		Cannon Mfg. Co.	
				Franklin Cotton Mill		Franklin Cotton Mills, Inc.		Franklin Cotton Mills, Inc.	



[illegible]



1911	Spindles	Looms	1926	Spindles	Looms	1911	Spindles	Looms	1926	Spindles	Looms
<b>Hope Mills</b>						<b>Waverly Cotton Mill Co.</b>					
Hope Mills Mfg. Co. Co.	14,004	800	Rockfish Mills	25,728		20,000			Waverly Cotton Mill Co.	20,000	
<b>Hudson</b>						<b>Lawndale</b>					
Hudson Cotton Mfg. Co.	5,376		Hudson Cot. Mfg. Co.	4,992					Prince Cotton Mill Co.	13,000	
			Caldwell Cotton Mills	6,048							
<b>Huntersville</b>						<b>Cleveland Mill &amp; Power Co.</b>					
Anchor Mills	5,250	400	Anchor Mills	10,948	400	5,600			Cleveland Mill & Power Co.	6,100	
<b>Jamestown</b>						<b>Leaksville</b>					
Oakdale Cotton Mills	5,344		Oakdale Cotton Mills	7,296					Bedspread Mill	17,280	254
<b>Kannapolis</b>						<b>Lenoir</b>					
Cannon Mfg. Co.	30,000	900	Cabarrus Cotton Mills	90,000	733	6,720			Leaksville Woolen Mills	1,080	22
Patterson Mfg. Co.	21,120	400	Cannon Mfg. Co.	116,000	4,000	5,376			Marshall Field Mills Corp.		12
<b>Kimesville</b>						<b>Lexington</b>					
Mt. Pleasant Mfg. Co.	2,300	101							Lenoir Cotton Mill	6,720	
<b>Kings Mountain</b>						<b>Lilledoun</b>					
Bonnie Cotton Mill	8,280		Bonnie Cotton Mills	8,320					Moore Cotton Mill Co.	5,376	
Cora Cotton Mills	10,560		Cora Cotton Mills	20,800					Steele Cotton Mill Co.	6,020	
Dilling Cotton Mills	16,000	300	Dilling Cotton Mills	21,184	150				<b>Watts Mfg. Co.</b>		
Kings Mtn. Mfg. Co.	5,000		Kings Mtn. Mfg. Co.	6,000		3,500	104		<b>Lincolnton</b>		
Klotho Mills	7,840		Pauline Mills	4,752	156				Elm Grove Cotton Mills	6,088	
Neisler, C. E. (Pauline Mills)		32	Phenix Mills Co.	16,000	400				Indian Creek Mfg. Co.	2,704	
Phenix Mfg. Co.	10,000		Margrace Mills	5,184	96				Rudisill, John. Mfg. Co.	2,496	
Sevier Cotton Mills Co.	5,000		Mason Cotton Mills	10,080					Saxony Spinning Co.	5,760	
Anna Cotton Mills	3,952	121	Park Yarn Mills	4,992					Wampum Cot. Mills, Inc.	14,064	
			Patricia Mills, Inc.		170				Anderson Mills, Inc.	5,600	100
			Sadie Cotton Mills	5,544					Arrow Mills, Inc.	12,150	
<b>Kinston</b>						<b>Long Island</b>					
Caswell Cotton Mills	5,500		Caswell Cotton Mills	16,224					Boger & Crawford Spinning Mills	13,600	
Kinston Cotton Mills	17,000		Kinston Cotton Mills	17,000					Eureka Mfg. Co.	1,360	
<b>Landis</b>						<b>Long Shoals</b>					
Linn Mills Co.	5,168		Linn Mills Co.	24,436					Excell Mfg. Co.	4,368	
			Corriher Mills	20,160					Laboratory Cotton Mills	5,100	
<b>Laurel Hill</b>									Melville Mfg. Co.	6,048	
Ida Yarn Mill	4,460								Rhodes-Rhyne Mfg. Co.	3,024	108
Richmond Cotton Mill	2,500								Roseland Spinning Mills, Inc.	4,320	
Springfield Cotton Mill	3,000								<b>Long Island Cot. Mills</b>		
<b>Laurinburg</b>											
Dickson Cotton Mill	15,000		Dickson Cotton Mills	20,000							
Scotland Cotton Mill	12,000		Scotland Cotton Mill	12,000							

# RAYON REEDS

On account of the ever-increasing use of Rayon (artificial silk) by Southern cotton mills, we are making a reed particularly adapted to the Rayon yarns.

Special attention is necessary to the finish on the wire used in these reeds, which finish requires approximately three times the length of time usually given to regular reed wire.

There is, however, absolutely no extra charge for this special finish as we invoice Rayon reeds at our regular standard prices.

## STEEL HEDDLE MANUFACTURING CO.

### MAIN PLANT

21st and Allegheny Ave., Philadelphia, Pa.

### SOUTHERN PLANT

Steel Heddle Bldg., 621-635 E. Mcbee Ave., Greenville, S. C. Hampton Smith, Manager.

### New England Office:

634 Grosvenor Bldg., Providence, R. I.

### Foreign Offices:

Huddersfield, England—Shanghai, China.

### THE STEEL HEDDLE LINE

"Duplex" Loom Harness (complete with Frames and Heddles fully assembled).  
Drop Wires (with Nickel Plated, Copper Plated or Plain Finished).

Heddles—Harness Frames—Selvage Harness  
—Leno Doups—Jacquard Heddles—Lingoes—  
Improved Loom Reeds—Leno Reeds—Lease  
Reeds—Beamer Hecks—Combs.



1911				1926				1911				1926			
Lowell				Lowell				Paw Creek				Paw Creek			
Spindles Looms				Spindles Looms				Spindles Looms				Spindles Looms			
Lowell Cotton Mills	15,356	---	---	Lowell Cotton Mills	23,500	---	---	Kendall Mills, Inc. (Thrift Mill)				30,240	676	---	---
Peerless Mfg. Co.	5,000	---	---	Peerless Mfg. Co.	14,616	---	---	Pineville							
				Art Cloth Mills, Inc.	---	600	---	Chadwick-Hoskins No. 5				13,500	380	---	---
Lumberton				Lumberton				Raeford				Raeford			
Jennings Cotton Mills	8,000	---	---	Jennings Cotton Mills	16,900	---	---	Raeford Power Mfg. Co.				5,016	---	---	---
National Cotton Mills	11,760	---	---	National Cotton Mills	15,600	---	---	Ragan				Ragan			
Dresden Cotton Mills	10,000	---	---	Mansfield Mills, Inc.	38,700	600	---	Ragan Spinning Co.				---	---	---	---
Lumberton Cotton Mills	18,016	---	---					Raleigh				Raleigh			
Maiden				Maiden				Caraleigh Mills Co.				11,232	426	---	---
Maiden Cotton Mills	4,000	---	---	Carolina Cotton Mills	12,000	---	---	Pilot Cotton Mills Co.				10,752	425	---	---
Providence Cotton Mills	6,500	---	---	Union Mills	10,230	---	---	Raleigh Cotton Mills				15,000	---	---	---
Union Cotton Mills	10,300	---	---	James Cotton Mills	8,400	---	---	Consolidated Tex. Corp.				---	---	---	---
				Liberty Spinning Co.	2,784	---	---	Ramseur				Ramseur			
Manchester				Manchester				Columbia Mfg. Co.				11,072	340	---	---
Manchester Cotton Mill	2,128	---	---	Marion	---	---	---	Naomi Falls Mfg. Co.				6,416	300	---	---
				Marion Mfg. Co.	25,840	880	---	Randleman				Randleman			
Marion Mfg. Co.	10,240	254	---	Clinchfield Mfg. Co.	65,520	1,600	---	Ranlo				Ranlo			
				Cross Cotton Mills Co.	12,500	---	---	Priacilla Spinning Co.				---	---	---	---
Mariposa				Mariposa				Rex Spinning Co.				---	---	---	---
Mariposa Cotton Mills	3,264	---	---	Alba Mfg. Co.	3,296	---	---	A. M. Smyre Mfg. Co.				26,000	---	---	---
								Spencer Mtn. Mills				5,368	50	---	---
Marshall				Marshall				Spencer Mtn. Mills				5,368	50	---	---
Capitola Mfg. Co.	9,000	---	---	Capitola Mfg. Co.	8,816	---	---	Edna Cotton Mills				25,300	552	---	---
Marshville				Marshville				Rhodhiss				Rhodhiss			
				Marshville Mfg. Co.	2,780	4	---	Rhodhiss Mfg. Co.				15,000	460	---	---
Mayodan				Mayodan				Roanoke Rapids				Roanoke Rapids			
Avalon Mills	18,120	---	---	Washington Mills Co.	24,696	---	---	Patterson Mills Co.				19,200	750	---	---
Mayo Mills	31,640	---	---					Roanoke Mills Co.				24,096	802	---	---
McAdenville				McAdenville				Rosemary Mfg. Co.				21,216	556	---	---
McAden Mills	28,000	350	---	McAden Mills	28,000	350	---	Roaring River				Roaring River			
								Yadkin Cotton Mills				---	---	---	---
Mebane				Mebane				Rockingham				Rockingham			
				Durham Hosiery Mills (Nos. 8 and 15)	10,080	---	---	Entwistle Mfg. Co.				20,000	500	---	---
Monroe				Monroe				Great Falls Mfg. Co.				10,480	239	---	---
Everett Cotton Mills	2,500	---	---	Icemorlee Cot. Mills, Inc.	12,500	---	---	Hannah Pickett Mills				16,000	400	---	---
Icemorlee Cot. Mills Co.	10,000	---	---	Manetta Mills (Monroe)	13,500	194	---	Midway Mills				10,000	300	---	---
Monroe Cotton Mills	8,992	194	---	Monroe Mills Co.	5,000	---	---	Ledbetter Mfg. Co.				2,736	---	---	---
Mooresville				Mooresville				Fee Dee Mfg. Co.				15,456	704	---	---
Dixie Cotton Mill Co.	5,652	---	---	Cascade Mills	12,000	300	---	Roberdel Mfg. Co.				16,500	725	---	---
Mooresville Cot. Mills	27,500	1,024	---	Mooresville Cot. Mills	57,500	1,820	---	Steele's Mills				23,296	600	---	---
Morganton				Morganton				Rockwell				Rockwell			
Alpine Cotton Mills	10,440	---	---	Alpine Cotton Mills	10,440	---	---	Barringer Mfg. Co.				3,000	---	---	---
Mortimer				Mortimer				Rocky Mount				Rocky Mount			
				United Mills Co.	6,300	---	---	Ronda				Ronda			
Mount Airy				Mount Airy				Rougemont				Rougemont			
Laurel Bluff Cot. Mills	1,440	---	---	Laurel Bluff Cot. Mill	5,000	---	---	Laura Cotton Mills				---	---	---	---
Hazlehurst Cot. Mill Co.	800	---	---					Roxboro				Roxboro			
Mount Holly				Mount Holly				Roxboro Cotton Mills				18,380	---	---	---
Albion Cotton Mills Co.	3,800	---	---	Amer. Yarn & Processing	50,000	---	---	A. T. Baker & Co., Inc.				---	---	---	---
Mt. Holly Cot. Mills Co.	2,000	---	---	Co.	---	---	---	Somerset Mills				---	---	---	---
Nims Mfg. Co.	6,500	---	---	Catawba Spinning Co.	7,500	---	---	The Cleghorn Mills				6,240	---	---	---
Woodlawn Mfg. Co.	10,000	---	---	Globe Yarn Mill, Inc.	5,040	---	---	Grace Cotton Mill Co.				---	---	---	---
Tuckaseegee Mfg. Co.	6,000	---	---	Tuckaseegee Spin. Co.	8,064	---	---	Salisbury				Salisbury			
Mountain Island				Mountain Island				Diamond Cotton Mills				26,000	306	---	---
Armon Mfg. Co.	10,000	---	---					Kessler Mfg. Co.				---	---	---	---
Mount Pleasant				Mount Pleasant				Grace Mills				---	---	---	---
Kindley, W. R., Cot. Mills	4,000	---	---	Kindley Cotton Mills	5,156	---	---	Salisbury Cotton Mills				21,500	590	---	---
Tuscarora Cotton Mills	4,000	---	---	Tuscarora Cotton Mills	5,760	---	---	Vance Cotton Mills				10,000	---	---	---
Neuse				Neuse				Kesler Mfg. Co.				---	---	---	---
Neuse River Mills	8,000	282	---	Neuse Mfg. Co.	8,000	216	---	Vance Cotton Mills				---	---	---	---
Newton				Newton				Sanford				Sanford			
Catawba Cotton Mill	7,000	---	---	Catawba Cotton Mills	8,000	---	---	Saxapahaw				Saxapahaw			
Clyde Cotton Mills	5,120	---	---	City Cotton Mills	5,000	84	---	Selma				Selma			
Newton Cotton Mills	8,000	---	---	Fibre Mfg. Co.	1,600	---	---	Eastern Mfg. Co.				---	---	---	---
North Wilkesboro				North Wilkesboro				Mobile Cot. Mills (Selma Plant)				---	---	---	---
				Mecklenburg Mfg. Co.	16,620	300	---	18,600				---	---	---	---
				Warlick Mfg. Co.	---	100	---	13,440				---	---	---	---
Norwood				Norwood				Sanford Cotton Mills				11,940	580	---	---
Norwood Mfg. Co.	14,848	---	---	Grier Cot. Mills, Inc.	7,000	---	---	Saxapahaw Cotton Mills				8,200	200	---	---
Oakboro				Oakboro				Selma				Selma			
				Oakboro Cot. Mills Co.	6,200	---	---	Ethel Cotton Mills				---	---	---	---
Oxford				Oxford				Lizzie Cotton Mills				---	---	---	---
Oxford Cotton Mills	6,120	---	---	Oxford Cotton Mills	6,120	---	---	Selma Cotton Mills				---	---	---	---
Patterson				Patterson				Sanford Cotton Mills				---	---	---	---
Gwyn-Harper Mfg. Co.	1,800	40	---	Watts Cotton Mill Co.	4,248	---	---	Saxapahaw Cotton Mills				---	---	---	---



1911				1926				1911				1926			
Shelby				Wadesboro											
Spindles		Looms		Spindles		Looms		Spindles		Looms		Spindles		Looms	
Belmont Cotton Mill Co.	3,800	---	---	Belmont Cotton Mills	4,850	---	---	Wadesboro Cot. Mills Co.	13,136	---	---	Wadesboro Cot. Mill Co.	14,016	---	---
Lily Mill & Power Co.	5,000	---	---	Lily Mill & Power Co.	6,784	---	---	Wade Mfg. Co.	---	---	---	Wade Mfg. Co.	13,608	---	400
Shelby Cotton Mills	15,000	250	---	Shelby Cotton Mills	20,832	509	---	Wake Forest							
Ella Mfg. Co.	5,184	126	---	Consolidated Tex. Corp.	11,328	263	---	Royal Cotton Mills	16,000	186	---	Royal Cotton Mills	16,000	186	---
				Cleveland Cloth Mills	---	150	---	Warrenton							
				Dover Mill Co.	11,500	264	---	Peck Mfg. Co.	5,000	---	---	Peck Mfg. Co.	5,760	---	---
				Eastside Mfg. Co.	11,776	308	---	Waxhaw							
				Ora Cotton Mills	6,000	214	---	Rodman-Heath Cot. Mills	6,256	---	---	Rodman-Heath Cot. Mill	6,256	---	---
				Siler City				Weldon							
Hadley Peoples Mfg. Co.	8,356	---	---	Hadley Peoples Mfg. Co.	9,796	---	---	Shaw Cotton Mills	7,168	---	---	Audrey Spinnings Mills	---	---	---
				Smithfield				Weldon Cotton Mfg. Co.	3,000	---	---	Co., Inc.	10,000	---	---
Ivanhoe Mfg. Co.	5,120	---	---	Ivanhoe Mfg. Co.	12,300	---	---	Wendell							
Smithfield Cotton Mills	10,000	---	---	Southside				Whitley Mfg. Co.	2,780	---	---	Whitnel Cotton Mill Co.	6,048	---	---
				Lincoln Cotton Mills	6,656	---	---	Whitnel							
				Spindale				Wilmington							
				Horn Co.	---	44	---	Bellwill Cotton Mills	5,824	290	---	Bellwill Cotton Mills	7,616	---	---
				The Spencer Mills Co.	8,770	150	---	Delgado Mills	10,304	421	---	Delgado Mills	24,032	900	---
				The Spindale Mills Co.	10,488	---	---	Wilson							
				Stonecutter Mills, Inc.	---	504	---	Wilson Cotton Mills	6,234	---	---	Wilson Cotton Mills	6,240	---	---
				Spray				Winston-Salem							
Leaksville Cotton Mill	5,824	632	---	Carolina Cot. & Woolen	49,562	1,652	---	Arista Mills Co.	16,000	368	---	Arista Mills Co.	18,960	446	---
Lily Mills	3,600	276	---	Mills Co.	5,824	624	---	Inverness Mills Co.	7,680	200	---	Inverness Mills Co.	7,680	220	---
Morehead Cot. Mill Co.	12,750	---	---	Leaksville Cotton Mill	---	---	---	Worth							
Nantucket Mills	11,700	940	---	Morehead Cot. Mills Co.	13,440	---	---	Hardin Mill	8,320	---	---	Hardin Mfg. Co.	8,000	---	---
Rhode Island Co.	10,000	140	---	Spray Cotton Mills	25,968	---	---	Worthville							
Spray Cotton Mills	24,240	---	---	Stanley				Worth Mfg. Co.	6,000	304	---	Leward Cotton Mills	10,256	288	---
				Stanley Mfg. Co.	4,160	---	---	Total	3,386,548	59,433	---	Total	6,106,779	90,617	---
				Lola Gingham Mill	---	350	---	OKLAHOMA							
				Lola Mfg. Co.	9,000	---	---	Guthrie							
				Statesville				Pioneer Cotton Mills	6,000	---	---	Pioneer Mills	5,712	104	---
Bloomfield Mfg. Co.	5,376	---	---	Bloomfield Mfg. Co.	6,072	---	---	Sand Springs							
Paola Cotton Mills	5,376	---	---	Paola Cotton Mills, Inc.	10,752	---	---	C. R. Miller Mfg. Co. of	---	---	---	Okla.	25,200	404	---
Statesville Cotton Mills	10,500	180	---	Statesville Cot. Mills	16,000	---	---	Total	6,000	---	---	Total	39,912	508	---
				Stony Point				SOUTH CAROLINA							
				Rocky Face Spinning Co.	6,048	---	---	Abbeville							
				Watts Spinning Co.	10,000	---	---	Abbeville Cotton Mills	28,900	940	---	Abbeville Cotton Mills	29,696	1,026	---
				St. Pauls				Anderson							
				Ernsdson Cot. Mills Co.	8,000	---	---	Anderson Cotton Mill	71,864	1,864	---	Anderson Cotton Mills	72,939	1,920	---
				McEachern Cot. Mill Co.	5,040	---	---	Brogan Mills	27,780	864	---	Appleton Mfg. Co.	30,488	902	---
				St. Pauls Cot. Mill Co.	18,960	---	---	Conneross Yarn Mill	1,200	---	---	Conneross Yarn Mills	1,200	---	---
				Stubbs				Gluck Mills	32,000	672	---	Gluck Mills	36,160	616	---
Buffalo Mfg. Co.	3,600	---	---	Buffalo Mills, Inc.	3,600	---	---	Orr Cotton Mills	62,272	1,504	---	Orr Cotton Mills	62,272	1,504	---
				Swannahoa				Riverside Mfg. Co.	20,272	---	---	Riverside Mfg. Co.	26,320	---	---
				Beacon Mfg. Co.	---	200	---	Townsend, H. C., Cot. Mill	5,016	---	---	Townsend, H. C., Cotton	---	---	---
				Swepsonville				Toxaway Mills	17,168	484	---	Toxaway Mills	3,840	---	---
Virginia Cotton Mills	10,000	400	---	Virginia Cotton Mills	14,272	504	---	Cox Mfg. Co.	25,000	400	---	Equinox Mills	30,384	788	---
				Tarboro				Arcadia							
Fountain Cotton Mills	6,524	---	---	Fountain Cotton Mills	13,000	336	---	Arcadia Mills	25,208	600	---	Arcadia Mills	44,128	1,162	---
Tarboro Cotton Factory	13,000	200	---	Hart Cotton Mills	18,000	224	---	Arkwright							
				Taylorsville				Arkwright Mills	20,256	604	---	Arkwright Mills	20,256	604	---
Taylorsville Cot. Mill Co.	5,760	---	---	Taylorsville Cot. Mill Co.	7,200	---	---	Arlington							
Alsbaugh Cotton Mills	2,600	56	---	Lilledown Mfg. Co.	5,760	---	---	Apalache Mills	20,000	534	---	Victor-Monaghan Co.	19,712	500	---
				Miller Mfg. Co.	7,200	---	---	Autun							
				N. State Cot. Mill Co.	5,040	---	---	Pendleton Mfg. Co.	2,500	---	---	Pendleton Mfg. Co.	3,100	28	---
				Thomasville				Bamberg							
Amazon Cotton Mills	6,000	---	---	Amazon Cotton Mills	19,872	---	---	Bamberg Cotton Mills Co.	10,752	324	---	Santee Mills	14,848	400	---
Jewel Cotton Mills	6,048	---	---	Jewel Cotton Mills	12,480	---	---	Batesubrg							
				Troutman				Middleburg Mills	9,728	310	---	Martel Mills, Inc.	10,624	320	---
				Hall-Kale Mfg. Co.	7,128	---	---	Batesville							
				Troy				Batesville Mill	2,600	---	---	Jenkins Mill	3,200	---	---
Smitherman Cotton Mills	5,824	216	---	Smitherman Cotton Mills	12,480	400	---	Bath							
Capelsie Cotton Mills	5,000	---	---	Rhyne-Anderson Mills Co.	5,000	---	---	Alken Mfg. Co.	27,500	802	---	The Aiken Mills	32,832	784	---
				Capel Rug Mill	---	3	---	Belton							
				Tryon				Belton Mills	57,000	1,300	---	Belton Mills	63,036	1,400	---
				Appalachian Weavers	---	7	---	Blair Mills	5,008	16	---	Blair Mills	5,008	92	---
				Tuckertown											
Tucker & Carter Rope Co.	8,000	---	---	Mecklenburg Mfg. Co.	10,000	---	---								
				Turnersburg											
Turnersburg Cotton Mills	1,600	---	---	Laura Ellen Watts Cot.	1,600	---	---								
				Mill Co.	---	---	---								
				Tuxedo											
Green River Mfg. Co.	7,300	---	---	Green River Mfg. Co.	8,208	---	---								
				Valdese											
				Valdese Mfg. Co.	14,000	---	---								
				Waldensian Weavers, Inc.	---	200	---								
				Vass											
Vass Cotton Mill Co.	4,300	---	---	Vass Cotton Mill Co.	5,760	---	---								



1911				1926				1911				1926			
Bennettsville				Fingerville											
Spindles		Looms		Spindles		Looms		Spindles		Looms		Spindles		Looms	
Marlboro Cotton Mills	15,000	---	---	Marlboro Cotton Mills No. 5	---	---	15,000	Cohannet Mills	---	---	---	Franklin Process Spinning Mill, Inc.	---	11,500	---
Blacksburg				Fork Shoals				Fort Mill				Fountain Inn			
Whitaker Cotton Mills	5,000	---	---	Broad River Mill	14,304	324	5,000	Fork Shoals Cotton Mill	5,248	---	---	Virginia Mfg. Co.	---	5,248	---
Bowling Green				Blacksburg Spinning Mills	---	---	---	Fort Mill Mfg. Co.	20,000	913	---	Fort Mill Mfg. Co.	---	42,000	1,249
Buffalo				Bowling Green Spinning Mill	5,040	---	---	Woodside Cot. Mills Co.	15,000	400	---	Woodside Cot. Mill Co.	---	16,832	458
Union-Buffalo Mills Co.	63,000	2,000	---	Buffalo Mill	62,880	1,929	---	Gaffney Mfg. Co.	63,184	1,566	---	Gaffney Mfg. Co.	---	80,512	1,868
Calhoun Falls				Camden				Globe Mfg. Co.	4,000	82	---	Globe Mfg. Co.	---	5,560	158
Calhoun Mills	25,600	600	---	Calhoun Mills	40,960	1,000	---	Hamrick Mills	25,000	624	---	Hamrick Mills	---	25,088	624
Carhartt				Carhartt				Irene Mills	5,000	100	---	Irene Mills	---	7,696	134
Hermitage Cotton Mills	16,224	390	---	Hermitage Cotton Mills	16,640	390	---	Limestone Mills	25,000	650	---	Limestone Mills	---	25,376	640
Pine Creek Mfg. Co.	18,816	492	---	Kendall Mills, Inc. (Wateree Mills)	18,816	420	---	Derry Damask Mill	---	---	---	Derry Damask Mill	---	15,196	380
Catechee				Catechee				Musgrove Cotton Mills	---	---	---	Musgrove Cotton Mills	---	20,240	440
Norris Cotton Mills Co.	18,288	452	---	Norris Cotton Mills Co.	19,968	440	---	Glendale				Goldville			
Central				Central				Converse, D. E. Co.	37,292	1,068	---	The D. E. Converse Co.	---	37,988	950
Issaqueena Mills	25,680	700	---	Issaqueena Mills	25,680	630	---	Banna Mfg. Co.	10,128	250	---	Joanna Cotton Mills	---	26,320	702
Charleston				Charleston				Graniteville				Great Falls			
Royal Bag & Yarn Mfg. Co.	12,500	333	---	Williamson Mills Co.	12,852	246	---	Graniteville Mfg. Co.	31,554	1,302	---	Graniteville Mfg. Co.	---	45,652	1,293
Cheraw				Cheraw				Greenville				Greenwood			
Cherokee Falls				Cherokee Falls				American Spinning Co.	52,416	1,056	---	American Spinning Co.	---	54,000	1,104
Cherokee Falls Mfg. Co.	25,600	580	---	Henrietta Mills	30,672	606	---	Brandon Mills	80,000	2,000	---	Brandon Mills	---	93,700	2,268
Cheesee				Cheesee				Camperdown Mills	10,000	512	---	Camperdown Mills	---	15,056	612
Chester				Chester				Poe, F. W. Mfg. Co.	70,000	1,700	---	Poe, F. W. Mfg. Co.	---	70,352	1,700
Eureka Cotton Mills	22,172	500	---	Eureka Cotton Mills	25,752	600	---	Conestee Mills	12,040	371	---	Conestee Mills	---	20,292	559
Springstein Mills	14,112	992	---	Springstein Mills	14,560	570	---	Vardry Cotton Mills	4,320	---	---	Vardry Mills	---	4,320	---
Wylie Mills	20,160	---	---	Aragon-Baldwin Cotton Mills	31,488	876	---	Woodside Cot. Mills Co.	85,000	2,024	---	Woodside Cot. Mills Co.	---	112,000	2,700
Clearwater				Clearwater				Carolina Mills	14,000	396	---	Poinsett Mills	---	27,776	726
Seminole Mfg. Co.	20,000	512	---	The Seminole Mills	23,104	508	---	Mills Mfg. Co.	31,000	816	---	Mills Mill	---	35,584	904
Clifton				Clifton				Monaghan Mills	60,032	1,460	---	Duncan Mills	---	50,720	1,800
Clifton Mfg. Co.	86,800	2,660	---	Clifton Mfg. Co.	86,800	2,660	---	Westervelt Mills	50,000	1,300	---	Judson Mills	---	52,864	2,300
Clinton				Clinton				Greener				Lullwater Mfg. Co.	---	5,500	36
Clinton Cotton Mills	61,696	1,436	---	Clinton Cotton Mills	69,856	1,570	---	Franklin Mills	10,000	288	---	Franklin Mills	---	11,120	313
Lydia Cotton Mills	19,736	500	---	Lydia Cotton Mills	30,992	602	---	Greer Mfg. Co.	10,240	280	---	Victor-Monaghan Co.	---	84,736	2,241
Clio				Clio				Victor Mfg. Co.	59,136	1,511	---	Greer and Victor (Plts.)	---	84,736	2,241
Octoraro Mills Co.	4,500	---	---	Clover				Hamer				Hartsville			
Clover				Clover				Dillon Mills	11,416	---	---	Carolina Tex. Corp., Mill No. 3	---	13,464	---
Clover Cotton Mfg. Co.	20,000	---	---	Clover Mills Co.	24,000	---	---	Hartsville				Honea Path			
Columbia				Columbia				Hartsville Cotton Mill	36,000	900	---	Hartsville Cotton Mills	---	38,280	850
Glencoe Cotton Mills	5,000	---	---	Glencoe Cotton Mills	6,048	---	---	Chiquola Mfg. Co.	41,280	1,000	---	Chiquola Mfg. Co.	---	41,280	1,000
Mt. Vernon Woodberry Cotton Duck Co.	32,000	486	---	Columbia Mills Co.	29,556	344	---	Inman				Iva			
Palmetto Cotton Mill	9,688	298	---	Martel Mills, Inc. (Palmetto Mill)	13,696	412	---	Inman Mills	33,024	840	---	Inman Mills	---	40,096	1,000
Capital City Mills	15,000	412	---	Pacific Mills (Hampton Dept.)	202,048	4,800	---	Jackson Mills	21,504	640	---	Jackson Mills	---	27,776	721
Granby Cotton Mills	57,000	1,549	---	Cowpens				Jonesville				Kershaw			
Olympia Cotton Mills	100,000	2,400	---	Cowpens				Jonesville Mfg. Co.	15,000	400	---	Wallace Mfg. Co.	---	15,980	424
Richlands Cotton Mills	26,000	700	---	Cowpens				Kershaw				Lancaster			
Cowpens				Cowpens				Kershaw				Lancaster			
Cowpens Mfg. Co.	17,000	408	---	Cowpens Mills	17,400	472	---	Kershaw				Lancaster			
Darlington				Darlington				Kershaw				Lancaster			
Darlington Mfg. Co.	51,392	1,465	---	Darlington Mfg. Co.	51,392	1,224	---	Kershaw				Lancaster			
Dillon				Dillon				Kershaw				Lancaster			
Dillon Mills	26,904	---	---	Carolina Textile Corp.	26,904	---	---	Kershaw				Lancaster			
Easley				Easley				Kershaw				Lancaster			
Alice Mills	20,480	480	---	Alice Mfg. Co.	38,400	948	---	Kershaw				Lancaster			
Easley Cotton Mills	37,744	1,020	---	Easley Cotton Mills	37,744	1,020	---	Kershaw				Lancaster			
Glenwood Cotton Mills	22,326	562	---	Glenwood Cotton Mills	45,976	1,160	---	Kershaw				Lancaster			
Edgefield				Edgefield				Kershaw				Lancaster			
Beaver Dam Mills	10,120	322	---	Kendall Mills, Inc.	17,312	300	---	Kershaw				Lancaster			
Enoree				Enoree				Kershaw				Lancaster			
Enoree Mfg. Co.	36,000	932	---	Enoree Mills	32,240	836	---	Kershaw				Lancaster			
Fairmont				Fairmont				Kershaw				Lancaster			
Fairmont Mfg. Co.	12,400	300	---	Fairmont Mfg. Co.	12,608	328	---	Kershaw				Lancaster			

(Continued on Page 108)



## Fifteen Years' Review

(Continued from Page 24)

The radical press raved and ranted and I came in for my share of the abuse, but the old maid inspectors had to pack their trunks and leave and the textile industry was freed of Federal domination.

Letters and telegrams of congratulation flooded us and many mill men thought the fight was over, but we knew better, and very quickly another law was introduced which sought to tax out of existence all articles not made under child labor conditions specified by the Government.

An effort was also made to get the War Labor Policies Board to put the provisions of the Keating-Owen Law into all Government contracts but I managed to defeat that movement.

The war was at its height during the summer and I was called to Washington repeatedly to advise and assist the War Department in obtaining the necessary supplies of cotton goods.

I was offered a responsible position in Washington, but convinced them that I could be of more service by keeping my hand upon the labor situation in the South and thereby keeping the production of army cotton goods upon a high scale.

Finding our two rooms in the Realty Building inadequate for our requirements, we arranged to have a two-story building 30x16 erected for us at 41 South Church street and moved to our new quarters on November 7, 1918, this being the third time we had moved into larger quarters.

With the Federal Child Labor Law declared unconstitutional, the parasites began another campaign of abuse against the cotton mills of the South, and in order to counteract same we began the preparation of our second "Health and Happiness Number," a beautiful edition of more than 300 pages, which was issued in December, 1918, and very widely distributed.

As soon as Congress met, the new movement for a Federal Child Labor Law came with the attachment of a rider to the Revenue Bill, placing a prohibition tax upon goods made with children employed contrary to provisions which were identical with those of the former Child Labor Law.

We realized that Congress was angry with the Supreme Court and was going to pass the second Child Labor Law as a matter of spite. We also realized that as it was attached to the Revenue Law, which had to be enacted before March, there was little opportunity to delay its passage.

Just for spite, however, we had an amendment drawn placing the enforcement of the new law under a special bureau in the Treasury Department.

We managed to get this adopted and Miss Grace Abbott and her Children's Bureau, cohorts were not able to get their claws upon any of the funds appropriated for the enforcement of the law.

I got as much pleasure from leaving Miss Abbott and her parasites

out in the cold as they did from the passage of the law, and I was confident that the law would be declared unconstitutional.

Just as soon as it passed, I employed all the lawyers that had been employed in testing the former law and on March 1, 1919, we held a conference in New York to determine the method of testing the constitutionality.

We returned to Charlotte and prepared the test case under which Eugene T. Johnston applied to the Federal Court for an injunction to prevent the Atherton Mills from refusing to employ his son, John W. Johnston, 15½ years old, for more than 8 hours per day, thereby reducing his earning capacity, and the hearing was held before Judge Boyd in Greensboro on May 2, 1919.

Judge Boyd declared this law unconstitutional and again the anvil chorus broke loose and I received my share of the abuse.

The case was, of course, appealed to the United States Supreme Court where there was great delay in being heard, but I was not lonesome, for union labor troubles had begun in the Charlotte section, and realizing that it was a major effort to establish unionism in our mills, I entered into the fight.

A manufacturer had acted unfairly in reducing wages while his mill was on short time, an action that he later regretted as much as anyone, but it had started the fires of hatred and the agitators, including Dean, McMahon, Kelleher and others, flocked to Charlotte and joined forces with several young attorneys who thought they could make political capital out of the movement.

Following a radical speech by one of the attorneys at Albemarle a man was killed and when the operatives were held for his murder we declared that the attorney was the real culprit.

That statement resulted in a written demand for an apology being brought to me by two union members and when I refused to apologize I was threatened with suit for damages.

Then a letter with skull and cross bones and signed "The Red Dagger Club" was found under my office door. It said that they were going to get me and I received several phone messages to the same effect.

After a rather strenuous summer the climax came when the textile unions tried to take part in a street car strike and five of them were killed by the Charlotte police at the car barn.

Unionism quieted down after that but broke out again during the spring and the summer of 1921.

On December 8th the United States Supreme Court heard the child labor case, our side being argued by W. M. Hendren, of Winston-Salem, with a brief that had been prepared by all of our attorneys after numerous conferences and discussions. It was many months after that before the court rendered its decision.

On December 25th we issued our third Health and Happiness Number, which was sent to all the public libraries in the United States, and

we believe that it did much to teach people that cotton mill conditions were better than they had been represented.

The latter portion of 1919 and the early months of 1920 were the greatest boom period in the history of the cotton manufacturing industry.

Prices and profits climbed higher and higher and the higher they went the more business there seemed to be in sight.

At first, I gave editorial warnings but was finally swept off my feet and began to believe that the boom would last for several years.

I had an intimate knowledge of the mills, and as there were men anxious to buy at almost any price, I began to secure options and to sell mills, and while it lasted, it was a profitable business for me.

In March the Federal Reserve Bank which had allowed inflation to run wild suddenly applied the brakes and the collapse began.

If our mills had had the good sense to cease operations at once, or if we had had the wisdom to urge them to do so, millions of profits might have been saved.

The mills kept on running after orders ran out or were cancelled and made such an enormous stock of goods and yarns that it required four years to get rid of them, which meant four years of adversity.

To make matters worse, someone started a "wear overalls" movement and that developed into a buyers' strike and the buying of cotton goods of all kinds decreased.

It was not until August, 1920, however, that we realized the seriousness of the situation, but from that time we urged curtailment by the mills upon an extensive scale.

Contrary to general expectation, the United States Supreme Court did not render the Federal Child Labor Law decision before they adjourned in June, 1920, and during the summer I realized the startling fact that the 15-year-old Johnston boy who had applied for the injunction would be sixteen before the court met in October, and if anybody discovered that fact the case would be thrown out without a decision.

I held a conference of my attorneys and decided to start another test case at once.

The law provided that if a child worked in a mill for even one day contrary to its regulations, the company should pay a fine of 10 per cent of its entire year's profits.

We desired to find some mill that had been fined and to make a test case by having them refuse to pay.

Much to my surprise I found that most every mill that had been assessed had paid. I finally found that the Drexel Furniture Company had not paid a fine of \$6,300 and arranged for them to refuse to pay.

The Drexel Company case was pushed through the lower courts and an agreement made to consolidate it with the Johnston case and we were safe.

In April, 1921, we received inside information that the United Textile Workers of America were preparing for a big drive for the unionization of the cotton mills of the South.

Their plans contemplated drives

at Columbus, Ga., Knoxville, Tenn., and at Charlotte, N. C., with special pressure at Charlotte.

It was planned to send Sarah Conboy to Charlotte, but the death of John Golden made it necessary for her to stay in New York and Thos. McMahon was sent in her place, for which I was very thankful.

We also learned upon absolutely reliable authority that two New England cotton manufacturers had contributed to the fund to be expended in unionizing the South and we so stated.

Our statement created a sensation and almost every manufacturer in New England came out with denials.

The man who had given the information was doing business with New England mills and rushed to us with the plea that if we mentioned his name it would seriously injure his business.

Although we knew positively that the money had been contributed by two individuals, we were forced to remain silent while many intimated that we had no basis for our statement. We had not at any time suggested that the cotton manufacturers of New England had as a whole contributed to the unionizing fund or had approved of such action, but our statement that two had contributed was absolutely true.

Realizing that we must have inside information in order to break the hold of the Northern agitators that were determined to establish a foothold at Charlotte, we arranged to put a man on the inside of the union circles who could keep us informed.

We never saw the man and knew him only as "Operative No. 23," but during the following strenuous month were in daily contact with him by mail and phone and knew better than the strikers what was going on in union circles, especially the manner in which the strike leaders were appropriating the union dues and collections while stalling the strikers about the \$6 per week which they were entitled to receive while on the strike.

We felt that no greater calamity could befall the cotton mill operatives of the South than to have them yield to the domination of McMahon, Conboy & Dean, and that in order to fight intelligently we must have true information relative to their operations.

At the beginning of the strike, the public being misinformed, sided to a large extent with the strikers and we felt that it was necessary that the public should be correctly informed.

We therefore purchased space in the daily newspapers of Charlotte and with full page and half page advertisements laid the facts before the people of our section with the result that public sentiment turned against the efforts of the agitators to establish unionism.

The union leaders stirred up, among the strikers, a very bitter feeling against me and I was threatened through letters and phone calls and the police became so alarmed that they placed a guard at my home every night for quite a period.

The strikers watched my office  
(Continued on Page 70)



# SOUTHERN TEXTILE BULLETIN

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THURSDAY, MARCH 4, 1926

DAVID CLARK  
D. H. HILL, JR.  
JUNIOUS M. SMITH

Managing Editor  
Associate Editor  
Business Manager

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## Fifteen Years' Review

WE present this Fifteenth Anniversary Number to the textile industry of the South with complete comparisons of spindles, looms and knitting machines in 1911 and in 1926.

On account of the recent illness of Mr. Clark, an attack of flu from which he has now recovered, we had to curtail our comparisons to some extent, but expect to make such comparisons in early issues.

From the statistics given it will be easy to determine the relative size of any individual mill in 1911 and 1926, or the textile growth of any town or State during that period.

Undoubtedly a few errors have been made but the lists were made from the Blue Book of 1911 and Clark's Directory of Southern Textile Mills, January 1, 1926.

We believe that it is time for the textile industry to take stock of its growth and this issue draws the picture for them.

In later issues we will compare the growth, of the number of spindles and looms, on sheeting and print cloth, ducks, tire fabrics, colored goods, carded yarns and combed yarns, and we believe that there will be some interesting revelations.

## Our Annual Review

THIS issue contains our Annual Review statistics, including Clark's Annual Spindle Increase List, and we were very much surprised to find that the number installed were 530,396, or in excess of the 1924 increase.

Included in the increase are many spindles moved from New England,

and while these increase the Southern spindleage they do not increase the total for the United States.

The record of Southern spindle increases for recent years has been:

1912	803,882
1913	435,300
1914	329,410
1915	340,886
1916	619,682
1917	546,168
1918	319,546
1919	425,844
1920	663,446
1921	298,328
1922	285,868
1923	730,812
1924	400,848
1925	530,396

The spindles installed during 1925 by States were as follows:

Alabama	85,774
Arkansas	10,000
Georgia	88,692
North Carolina	114,110
South Carolina	111,032
Tennessee	103,052
Texas	17,336
Virginia	4,000

**Total Spindles Installed in 1925** 530,396

Knitting machines installed in 1925, arranged by States, were as follows:

Alabama	591
Georgia	513
Kentucky	124
Louisiana	48
North Carolina	2,219
South Carolina	363
Tennessee	1,323
Texas	75
Virginia	527

**Total Knitting Machines Installed in 1925** 5,783

Conditions recently have not been such as to encourage the building of new mills and additions, but our reports show that new mills and additions planned January 1, 1926, which will contain 280,988 spindles which were divided among the States as follows:

Alabama	38,500
Georgia	100,000
North Carolina	117,968
South Carolina	2,520
Tennessee	12,000
Texas	10,000

**Total Spindles to be Installed in 1926** 280,988

Of more than passing interest is our list of small specialty weaving plants that have recently been established in the South and we predict that our growth in such mills will be very rapid in the future.

Neither our spindle increase list or our spindles-to-be-installed list includes machinery ordered for replacements of old machinery, which has been of good volume and will probably be greater this year.

The South is certainly not going to make the New England mistake of trying to keep on using old machinery after it becomes antiquated and inefficient.

## Commissioner of Labor Says Southern Wages Proportionate

TEXTILE workers in North Carolina, on an average, receive as much for their work as do the textile workers in the State of Massachusetts, according to Frank D. Grist, Commissioner of Labor and Printing of North Carolina, who has just completed a compilation of statistics showing the relative wages paid mill workers in North Carolina and Massachusetts.

"Textile workers in the South," said Mr. Grist, "really make more than those in the North, when the facts are taken into consideration with regard to the high cost of living and climatic conditions in New England."

## R. E. Reeves

R. E. REEVES was president of the Hunter Manufacturing & Commission Co. and as such was justly rated as a big man in the business world.

His real strength, however, was his sincerity and his friendship.

He came in contact almost daily with the cotton manufacturers of the South and for the past few years most of them appeared before him with troubles.

Reeves with his kindly smile heard their troubles and did his best to help each and every one and they left him feeling he was their friend before he was their merchant.

In this day of "hard boiled," cold-blooded business men, Reeves stood out as the exception to the rule and he seemed to get much pleasure out of helping those who needed help and advice.

Reared in a small North Carolina

town, he made his way to the head of the largest cotton goods commission house in the world and so established his position there that when he was stricken down in the prime of life, his passing was noted with deep and sincere regret.

The textile industry of the South had a great and true friend in R. E. Reeves and has suffered a severe loss in his death.

## The Production of Rayon

IN commenting upon the rapidly increasing number of rayon manufacturers, the Manchester Guardian, of Manchester, England, says:

"Whether or not the expansion in the consuming industry will keep pace with production and will absorb the output of all these new companies time alone can tell, but there is no doubt that the future will see a great increase in competition. The struggle is, however, likely to be chiefly in the lower qualities and coarser counts, while the old-established concerns are concentrating on the output of finer and higher grade yarn. There is no reason to doubt the future of the artificial silk industry, though it must be borne in mind that this does not necessarily mean prosperity for each individual producer."

The world production of rayon is estimated by the Journal of Commerce as follows:

	1923	1924	1925
U. S.	35,400,000	38,750,000	51,000,000
Gt. Britain	18,500,000	23,947,000	28,000,000
Germany	13,000,000	23,672,000	26,000,000
Italy	10,000,000	18,480,000	24,500,000
France	7,700,000	12,333,000	14,000,000
Belgium	6,000,000	8,874,800	10,000,000
Others	8,400,000	15,107,600	20,000,000
Total	97,000,000	141,164,400	173,500,000

The consumption of rayon has increased very rapidly and shows no sign of diminishing, but the production is now also upon a very large scale.

## Articles on Machinery Developments

IN order to review important developments in textile machinery manufacture during the past fifteen years, we are publishing in this issue a number of articles written by various builders of textile machinery. These articles are very interesting and show that the work of the machinery builders has been a very essential factor in the development of the textile industry. The makers of textile machinery have not confined their efforts to the mere manufacture and distribution of their products. They have rendered an exceedingly valuable service to the Southern mills through their willingness at all times to help the mills in the solution of technical problems and the strong personal friendship existing between representatives of the machinery makers and the mill men is a valuable asset to both.

It is understood, of course, that any opinions concerning the relative merits of various makes of machinery, as expressed in these articles, do not in any way reflect the opinion of the publishers.

All of our advertisers were invited to contribute to this issue and we regret that many of them failed to do so.



FRANK B. KENNEY  
President

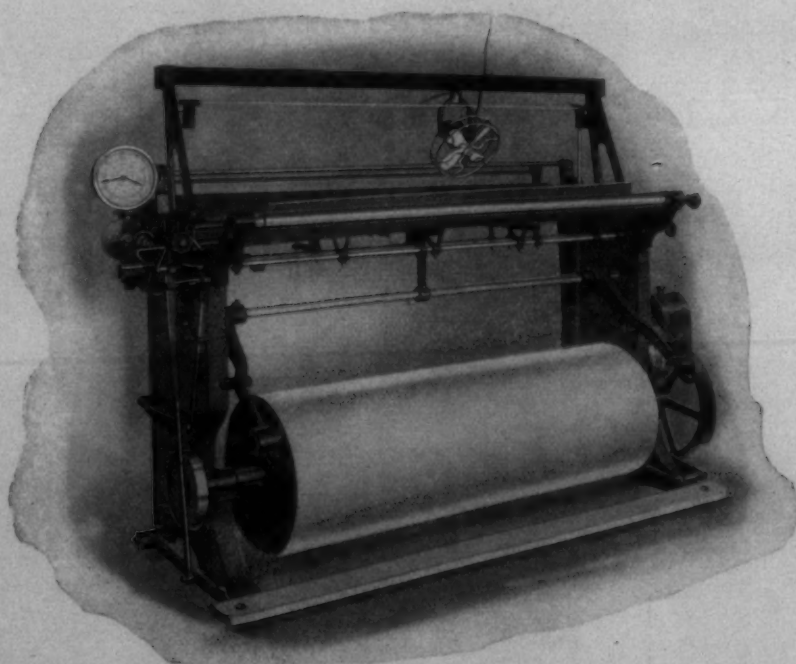
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The Information is free, the equipment worth all we ask you to pay. It is not just a case of a sale: Unless it will do the work as well or better than any other, we don't want the order. Another major feature of the ENTWISTLE LINE is the **prompt service** and reasonable cost of occasionally necessary repairs. NEVER LONGER THAN A FEW DAYS. NO LONG WAITS OR SHUT DOWNS—a worth while item to remember when ordering new equipment.



## *Facts About Charlotte*

70,000 Population (1925).

Over 250 Industrial and  
Manufacturing Plants.

Bank Resources of \$47,-  
333,988.80 (Dec. 31,  
1924).

Bank Clearings of \$535,-  
650,983.88 (1924).

Post Office Receipts of  
\$661,572.01 (1924).

Express Receipts of more  
than \$500,000.00.

Freights Receipts of \$10,-  
500,000.00 (1924).

Building Permits in 1924  
of \$6,796,433.00.

Building Permits in 1923  
of \$5,265,340.00.

Real Estate Taxable Value  
of \$105,387,797.00.

A Bond Issue of \$1,000,-  
000.00 for Extension of  
the City School System  
in 1925.

Over 100 Miles of Paved  
Streets.

Four Railway Lines with  
100 Trains Daily.

Five Libraries with over  
25,000 volumes, includ-  
ing the Charlotte Pub-  
lic Library with 13,000  
volumes.

# Super-Pow Hydro a



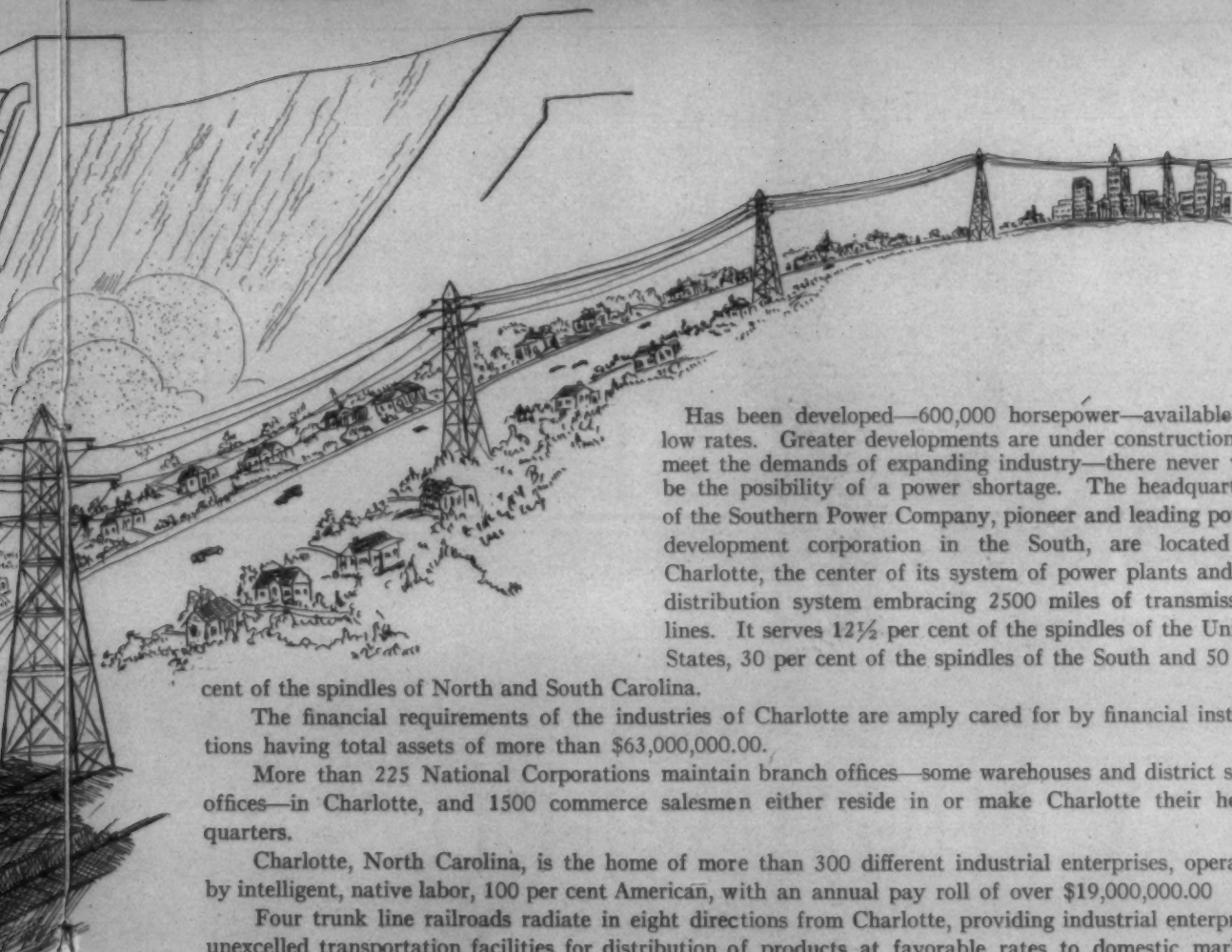
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CH

Mail the coupon to  
merce—Detailed in  
advantages as an in  
live in will be mail



# Power and Steam



Has been developed—600,000 horsepower—available at low rates. Greater developments are under construction to meet the demands of expanding industry—there never will be the possibility of a power shortage. The headquarters of the Southern Power Company, pioneer and leading power development corporation in the South, are located in Charlotte, the center of its system of power plants and its distribution system embracing 2500 miles of transmission lines. It serves 12½ per cent of the spindles of the United States, 30 per cent of the spindles of the South and 50 per

cent of the spindles of North and South Carolina.

The financial requirements of the industries of Charlotte are amply cared for by financial institutions having total assets of more than \$63,000,000.00.

More than 225 National Corporations maintain branch offices—some warehouses and district sales offices—in Charlotte, and 1500 commerce salesmen either reside in or make Charlotte their headquarters.

Charlotte, North Carolina, is the home of more than 300 different industrial enterprises, operated by intelligent, native labor, 100 per cent American, with an annual pay roll of over \$19,000,000.00

Four trunk line railroads radiate in eight directions from Charlotte, providing industrial enterprises unexcelled transportation facilities for distribution of products at favorable rates to domestic markets and convenient seaports. Terminal facilities are available for handling 3400 carloads daily. A network

of hard surfaced roads offer ideal conditions for motor transportation.

Industrial enterprises seeking a location in Charlotte, North Carolina, will find a plentiful supply of American white labor, thrifty, capable, loyal, and untouched by unsettled propaganda.

Charlotte, North Carolina, territory abounds in natural resources; mineral, forest and agricultural, offering a wide range of raw materials. Building materials in quantities are obtained from the immediate vicinity—Cotton grows to the very doors of the mills.

## CHARLOTTE CHAMBER OF COMMERCE

*See coupon to the Charlotte Chamber of Commerce. Detailed information relating to Charlotte's advantages as an industrial location and a place to live will be mailed.*

Chamber of Commerce, Charlotte, N. C.  
Please send me information and literature relating to Charlotte, N. C.  
Name \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_  
County and State \_\_\_\_\_  
I am interested in \_\_\_\_\_ business

## Facts About Charlotte

An Automobile Speedway, 9 miles from the City, with capacity for 60,000 spectators.

Seven Hotels with a total of 1,063 Rooms.

Six Hospitals and Sanitariums, all modern.

\$1,500,000.00 Waterworks System, daily pumping capacity of 10,000,000 gallons and Reservoir capacity of 60,000,000 gallons.

One of the best Street Railway Systems in the country with over 38 miles of track.

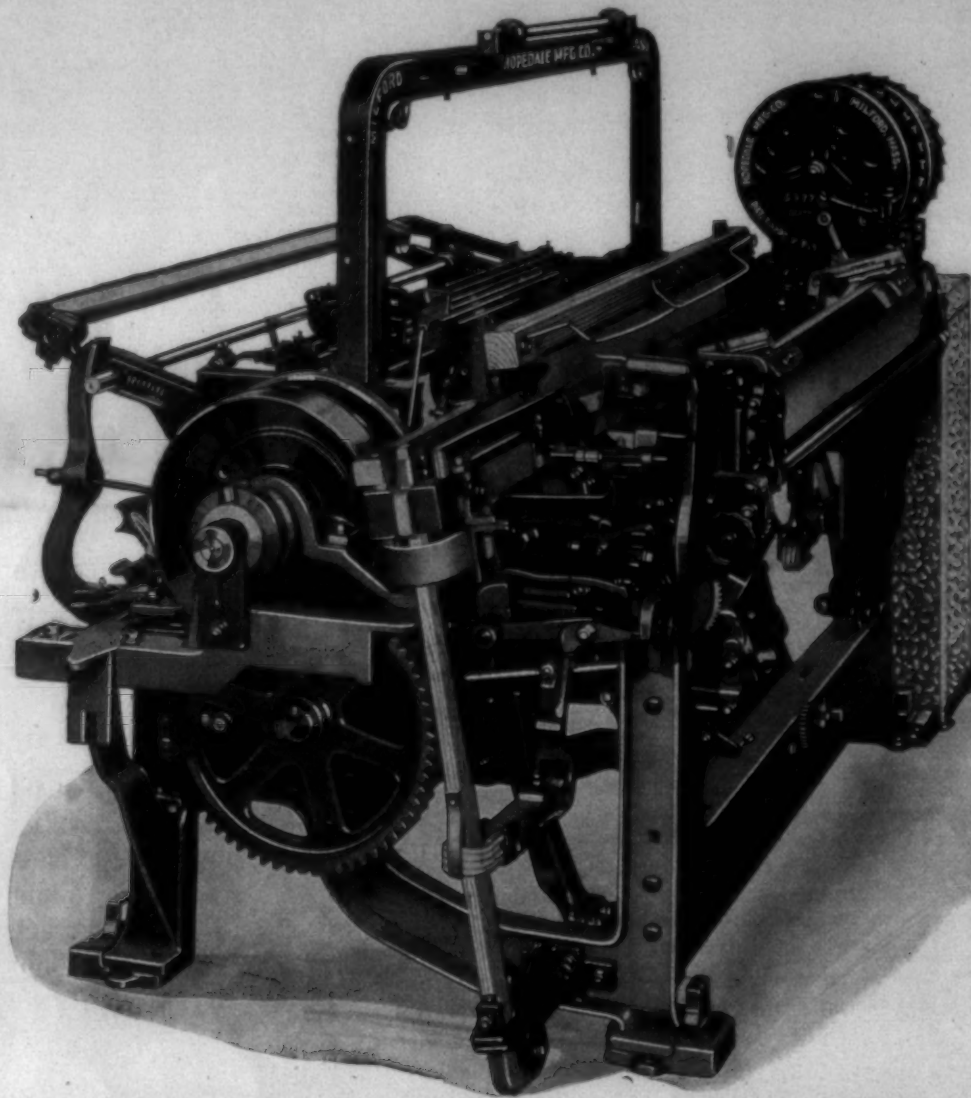
Two Daily Newspapers, The Observer and The News, with combined circulation of more than 50,000.

The Commission Form of Government.

105 Churches, Temples and Synagogues in the City and environs.

Chief center of the motion picture industry between Washington and Atlanta, designated by the industry as a "key city." Seventeen exchanges here distribute films.





# NORDRAY HIGH-SPEED

BUILT BY THE

# HOPEDALE MFG. CO

OF MILFORD MASS. & GREENVILLE, S. C.

The latest development in automatic weaving. Running in large numbers in six southern mills. Greater production, less floor space. Also looms for silk, worsted, woolens, etc. Dobbies and other attachments applied to old looms.



## Personal News

M. Davis has resigned as master mechanic at the Chadwick-Hoskins Mill No. 5, Pineville, N. C.

R. F. Adams has resigned as overseer spinning at the Chadwick-Hoskins Mill No. 5, Pineville, N. C.

J. J. McCrary has been appointed superintendent of the Roswell Mills, Roswell, Ga.

J. P. Wood has resigned as superintendent of the Roswell Mills, Roswell, Ga.

George H. Parker has become overseer of spinning at the Bibb Mill No. 1, Macon, Ga.

Chas. H. Goodroe has resigned as superintendent of the Acworth (Ga.) Cotton Mills.

Robert H. Roane has resigned as overseer carding at the Osprey Mills, Porterdales, Ga.

W. R. Goodwin has become night overseer of weaving at the Micolas Mills, Opp, Ala.

E. F. Wilborn has resigned as night overseer of weaving at the Micolas Mills, Opp, Ala.

M. C. Phillips has resigned as overseer of weaving at Chadwick-Hoskins Mill No. 2, Charlotte, N. C.

Walter H. Martin has resigned as overseer carding and spinning at the Acworth Mills, Acworth, Ga.

—, Mode of Greer, S. C., has accepted the position of overseer of weaving at the Chadwick-Hoskins Mill No. 2, Charlotte, N. C.

P. C. Johnson has been appointed overseer spinning at the Georgia Manufacturing Company, Whitehall, Ga.

J. H. Pope has been promoted from overseer weaving to superintendent at Acworth Mills, Acworth, Ga.

R. J. Doss has been appointed overseer spinning and winding at night at the Villi Rica Cotton Mills, Villa Rica, Ga.

W. J. Barnett has been appointed night superintendent of the Thomaston and Peerless Mills, Thomaston, Ga.

P. B. Mitchel, formerly of Bessemer City, N. C., has accepted the position of general superintendent of the Joanna Mills, Goldville, S. C.

W. G. Cash has been appointed overseer spinning at the Griffin Manufacturing Company, Griffin, Ga.

J. H. Van Holler has resigned as overseer of carding at the Baldwin plant of the Aragon-Baldwin Mills, Chester, S. C.

Claude A. Huckabee has been transferred from overseer spinning to overseer carding at the Griffin Manufacturing Company, Griffin, Ga.

T. J. Johnston has been transferred from overseer carding to master mechanic at the Chadwick-Hoskins Mill No. 5, Pineville, N. C.

H. E. Runge has resigned his position with the Draper Company to become superintendent of Grendel Mills No. 2, Greenwood, S. C.

M. C. Dawkins, of Bessemer City, N. C., has accepted the position of overseer of carding and spinning at the new Columbus Cotton Mills,

H. L. Whitman, of the Knoxville Cotton Mills, Knoxville, Tenn., has become overseer of carding at the Chadwick-Hoskins Mill No. 5, Pineville, N. C.

J. W. Hunt, of the Greenwood Cotton Mills, Greenwood, S. C., has become overseer spinning at the Chadwick-Hoskins Mill No. 5, Pineville, N. C.

T. G. Orr has resigned as overseer of carding and spinning at the Rhyne-Anderson Mills, Troy, N. C., to become overseer carding at the Kinston Cotton Mills, Kinston, N. C.

Homer L. Pruitt, formerly of Piedmont, S. C., has become overseer of weaving at the Lanett plant of the West Point Manufacturing Company, Lanett, Ala.

D. R. LaFar has been transferred from night overseer spinning at the Priscilla Mills, Ranlo, N. C., to superintendent of the Hardin Manufacturing Company, Worth, N. C. Columbus, N. C.

W. A. Hadaway has resigned as superintendent of the Marlboro Mills Nos. 1 and 2, McColl, S. C., to become overseer of carding at the new Southern Brighton Mills, Shannon, Ga.

W. O. Jones, formerly overseer of weaving at the Monaghan plant of the Victor-Monaghan Mills, Greenville, S. C., has accepted a position as a representative of the Southern plant of the Steel Heddle Manufacturing Company. He succeeds D. F. Poole, who recently became superintendent of the High Shoals plant of the Manville-Jenckes Company, High Shoals, N. C.

### Establish Cotton Mills in California.

Mt. Holly, N. C.—It is quite interesting to know that the eyes of the world are on the cotton mill industry of this part of the State. With one exception Gaston county leads in number of cotton mills in the United States. The past week Mr. and Mrs. A. C. Lineberger, of Belmont, have had as their guests Congressman Lineberger, of California, and one of the senators, also from California, who came from the distant State to look over the cotton mill industry and carry home with them the best methods used in the mill business. It is their intention to establish cotton mills in their home State.

## AMALIE PRODUCTS

# Amalie SULPHO-TEXTOL OIL

A DISTINCTIVELY SULPHONATED C. P. CASTOR OIL  
EMBRACING IMPORTANT IMPROVEMENTS IN SULPHONATION  
A PROCESS EVOLVED BY THE SONNEBORN TEXTILE LABORATORIES

These facts explain concisely the *preference* for AMALIE SULPHO TEXTOL OIL among America's foremost dyehouses.

Adapting itself *readily* under varying dyehouse conditions, our product gives to the user an absolute safety for quality production.

The following vital reasons tell you why AMALIE SULPHO TEXTOL OIL will fit in *profitably* with your dyehouse requirements—

*A Very High Content of Combined Sulphate* gives it an unusual degree of solubility, forming a *clear* solution in every concentration with either hot or cold water.

Being *acid proof* and *lime proof*, it resists *extremely hard water*, acids (also inorganic) and high temperature dye liquors. It will not separate out of solution and form *insoluble scums* in the dye kettle.

*Glauder's salts*, added to the dye bath, even in large amounts, will not "break the oil." This is extremely important in certain processes of dyeing.

Two added features of AMALIE SULPHO TEXTOL OIL are its *freedom* from stickiness and its *dependability* to leave *no objectionable odors* on the goods due to rancidity. These are common complaints with the usual sulphonated castor oils, turkey red oils, etc.

**For Best Dyeing Results Insist On  
AMALIE SULPHO TEXTOL OIL**

**Its Cost is Less**

**L. SONNEBORN SONS, Inc.**

*Manufacturing Chemists to the  
Textile Industry*

**114 Fifth Avenue  
New York**

**L. SONNEBORN SONS, INC., NEW YORK, N.Y.**



# MILL NEWS ITEMS OF INTEREST

**Waycross, Ga.**—It is reported that the Cartersville Knitting Mills, of Cartersville, Ga., will establish a branch plant here.

**Glen Alpine, N. C.**—It is understood that the Glen Alpine Knitting Mills are planning to install a finishing plant.

**Washington, Tenn.**—The Washington Hosiery Mills, previously reported to enlarge their plant, has increased capital stock to \$200,000 and will erect an addition, installing sufficient machinery to increase the daily output to 1,500 pairs of hosiery.

**Anderson, S. C.**—The Appleton Manufacturing Company, successors of the Brogan Mills, will build 100 homes for workers within the next few months. Further development will double the capacity of the mill, it is announced, at an approximate cost of \$1,000,000.

**Charlotte, N. C.**—The several plants of the Mecklenburg Mills Company, which has been in bankruptcy for some time, will be offered at public at Newton, N. C., on March 27, by Sidney S. Alderman, special master.

The sale will include the Mecklenburg Mills here, at Newton and at Tuckertown, N. C.

**Chattanooga, Tenn.**—The plant of the Central Franklin Process Company will be opened about March 15, according to officials of the Southern Franklin Process Company of this city. John B. Murray, formerly of Greenville will be in charge of the Chattanooga plant.

The plant in Chattanooga will be at the outset about the same size as the Southern Franklin Process Company when it was started.

**Kinston, N. C.**—L. J. Mewborne has been elected president of the Kinston Cotton Mills for the company's new fiscal year. He succeeds the late J. Fred Taylor. Dr. Henry Tull was re-elected vice president and Thomas V. Moseley was renamed secretary-treasurer and manager. Officials of the company declared that recent audits showed the mills to be in good shape, with the operating outlook good.

**Roanoke, Ala.**—Announcement has just been made of the completion of arrangements for the establishment of another cotton factory in Roanoke. The Skennandoa Cotton Company, of Utica, New York, an old and successful manufacturing concern, are the main promoters. Local citizens raised \$150,000 in preferred stock as the condition of securing the plant, the total cost of which will be \$550,000. This will be a yarn mill and will have 11,400 spindles, and will consume about 10,000 bales of cotton annually. It is estimated that this industry will add about 750 to the population of Roanoke.

**Houston, Texas.**—Plans for the Houston Textile Mill at Houston, Texas, are now being drawn in the office of J. E. Sirrine & Co., mill engineers, and will be completed on Monday. Bids for the plant will be asked for, and the contract will be let, about March 15. The proposed plant will have 5,000 spindles and 100 looms. Work is expected to start on the plant as soon after the contract is let as the material can be assembled.

**Johnson City, Tenn.**—The Tennessee Silk Mills, owned by the Leon-Fernbach interests of Wilkes-Barre, Pa. and New York city will at once install a large amount of new machinery, part of which will replace old equipment, according to Lewis T. Harrower, the local manager. A considerable portion of the new equipment will be added capacity, as the mill has been running on a 24-hour basis for some time and additional capacity is badly needed. The mill uses a large amount of rayon. With the installation of the new equipment approximately 50 additional operatives will be required, bringing the total to more than 200.

It is understood an additional unit will be erected at an early date on the land adjoining the present plant.

**Jackson, Tenn.**—It is understood that the Priester Hosiery Mills, of which B. J. Priester is principal owner, will sell their present plant and establish a smaller plant to manufacture silk hosiery.

**Kannapolis, N. C.**—Contract for the erection of the new 50,000 spindle addition to the Cannon Mills, was awarded to Brown-Harry Construction Company of Gastonia, it was announced by officials of the mill.

The new building will be erected at a cost of approximately \$375,000, it was stated, work to begin March 8. The contractors expect to have the structure completed by September first.

The building will be 100 feet wide and 700 feet long and in addition to this there will be an annex 100 feet long and 300 feet wide. The two buildings will be erected as one unit.

Approximately 50,000 spindles will be housed in the new structure and it is also planned to install cards, it is said. Orders for the machinery have already been placed.

The new building, which will be designated as Mill No. 7, will be located west of Mill No. 6. It will be of standard mill construction, it is said, except that steel will be used in place of wooden timbers in many places in the structure.

**Anderson, S. C.**—Approximately \$300,000 has been spent for new machinery by the Appleton Manufacturing Company, which recently purchased the Brogan Mills. A considerable part of this equipment now is in operation.

John N. Badger has been appointed superintendent of the mills. He formerly was superintendent of the Dunnean and Victor Monaghan Mills. The Appleton organization now is concentrating on 10 brands of flannels, being made in two widths, 27 and 36 inches.

**Gaffney, S. C.**—The Sultrene Mills will resume operating about the middle of next week, according to J. W. Bolan, the superintendent, who now has a force of employees engaged in cleaning and oiling the machinery, which has stood idle for several weeks.

Following the failure of a reorganization plan a short time ago. W. D. Aderholt, of Henry River, N. C., who purchased the plant at a bankrupt sale some time ago, decided to operate the mills himself. Mr. Bolan stated. The product is sport hose exclusively.

**Belmont, N. C.**—The Belmont Fabric Company expects to have cotton in its mill within the next month. This mill—the 14th in the Belmont chain—will start up with practically 100 per cent individually motor driven machines, and will use the "Texrope" drive. The Cooper-Hewitt lighting will be used throughout, and the Rhode Island humidifiers will be used for humidifying. The mill will spin counts of yarn up to 22s and will weave its own yarns into upholstery cloth, tapestry cloth and novelties.

Thirty-six houses are practically completed, with running water and baths. This mill has a beautiful location, and is on the new boulevard connecting Charlotte and Gastonia.

T. F. Cuddy is having the machinery placed, and will remain with the mill as superintendent. J. H. Bagwell has been employed as overseer of weaving, and J. M. Short as overseer of carding and spinning.

**Greensboro, N. C.**—Bliss, Babyan & Co., of Boston, Mass., cotton goods, has filed a bill in equity in the U. S. Court, Western District of North Carolina, asking that the judge of the court issue a perpetual injunction restraining the Aileen Cotton Mills, of Biscoe, N. C., from using the trademark "Krinklette" on its manufactured goods, especially on bedspreads.

It is stated in the complaint filed by the plaintiff that in 1910 the plaintiff began manufacturing cotton piece goods, bedspreads, dress goods, sheetings, etc., and on March 12, 1910, filed application for registry of the trademark "Ripplette" for such goods, which application was granted. But, it is asserted, although the plaintiff continuously has used

## THE FARISH COMPANY

COMMISSION MERCHANTS

100 WORTH STREET

NEW YORK

## THE TRIPOD PAINT COMPANY

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LANDSCAPE ARCHITECT and ENGINEER

Town Planning and Mill Villages  
Real Estate Subdivisions and Resorts  
Country Clubs and Golf Courses  
Private Estates and Home Grounds  
Parks, Playgrounds and Cemeteries

Complete Topographic Surveys  
General Designs, Grading, Planting and Detail Plans

Supervision of Landscape and Engineering Construction.

Largest Landscape Organization in the South



that trademark and advertised it extensively, the defendant company since adopted the trademark "Krinklette" for its goods, especially for bedspreads. This was done to deceive the public and to taken an unfair advantage, the complaint of the plaintiff alleges.

It is asked that the judge, in addition to issuing a perpetual injunction against the use of the word "Krinklette," order the defendant company to pay over to the plaintiff all gains and profits from the sale of goods bearing that name.

The bill in equity is brought in this court because of the diverse citizenship of plaintiff and defendant and because of the national character of trademarks.

### Georgia Meeting to Discuss Carding and Spinning

A splendid attendance is anticipated at the Spring meeting of Textile Operating Executives of Georgia, to be held on Tuesday, March 9th, at the Ansley Hotel. In addition to the Georgia mill men, a number of visitors from Alabama and other States will attend, according to Robert W. Phillip, associate editor of "Cotton," who is secretary of the Association.

Practical discussion on carding and spinning will feature the meeting. George A. Franklin, of Augusta, general superintendent, Sibley Manufacturing Company, Enterprise Manufacturing Company, and Augusta Factory, who is general chairman of the organization, will lead the carding discussion. Frank S. Dennis, manager and superintendent, Consolidated Textile Corporation, LaFayette, Ga., will conduct the spinning discussion.

Election of a member of the executive committee to succeed D. W. Anderson, of New Holland, whose term expires, will be the only formal business transacted at the meeting.

Textile machinery, specially, supply and equipment sales representatives will be in attendance at the meeting also, it is announced.

The delegates will register in the main lobby, and the meeting will open at 9:30 o'clock, Tuesday morning on the hotel roof garden. The meeting will continue until one o'clock, when the usual "Dutch" luncheon will be served. Following

the luncheon, adjournment will be taken, as the usual afternoon session will be dispensed with, following the custom carried out at the slashing-weaving meeting last Fall.

Following is the questionnaire which will form the basis of the discussion at this meeting:

#### Carding

1. Would it be any advantage to install a Buckley type beater, of the same size and diameter, in the place of the first beater in breaker pickers? Why?

2. What is the difference in the variation of the Finished roving

when allowing two pounds variation in the weight of the finisher lap instead of the customary one pound, provided no other changes are made?

3. What is the difference in the variation in weight and breaking strength of Yarn when using one process of drawing instead of two processes, as is customary, provided no other changes are made except to adjust the draft on the drawing frames to maintain the same weight finished drawing with one process as with two processes?

4. Is a draft of 7.00 too long on speeders? If so, why?

5. Should white waste carried back to the picker room from drawing frames and slubbers be ground or otherwise treated before reworking in pickers. If so, what method is best?

6. How often should spindle steps on fly frames be oiled?

#### Spinning.

1. When the work is running fine all the way through the card room, why is it that the spinning will sometimes run bad and ends lap up?

2. Have you had any experience in using an all-wool roller cloth for roving and spinning frame rollers? If so, what were your findings?

3. What is the difference in end breakage on the combination and filling build, with the same front roll speeds?

4. Does filling wind give any increase in production over warp wind?

Send answers to Robert W. Phillip, 1017 Grant Building, Atlanta, Ga.

#### N. C. Mill Men to Meet June 25-26.

Charlotte, N. C.—The Cotton Manufacturers' Association of North Carolina will hold its regular convention at Asheville at Grove Park Inn, June 25 and 26, according to Hunter Marshall, Jr., secretary and treasurer of the association. The announcement was made following a meeting of the executive committee.

S. F. Patterson, of Roanoke Rapids, is president of the association, and J. M. Gamewell, of Lexington, is first vice-president and chairman of the executive committee.

## DRUIDOAK LOOM LEATHERS

Highest Grade Oak Tanned  
For Cotton, Wool and Silk Looms

Check Straps,  
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Lugs, etc.

Hold-ups,  
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The Druid Oak Belting Co., Inc.  
Baltimore—Boston

## UNIFORM IN APPLICATION Victrolyn

Reg. U. S. Patent Office

A dependable assistant in sizing Cotton Warps

SOLE MANUFACTURERS

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## STEEL—IRON

Bars, Beams, Sheets, Etc.

Warehouse and Fabricating Shop

Fireproof Construction Materials

SHAND ENGINEERING & SALES CO.

Columbia, S. C.

## Reliable Humidifying Devices

Since 1888  
also

Better Textile Dryers

Manufactured by GRINNELL COMPANY, Inc.

## AMERICAN MOISTENING COMPANY

Atlanta  
Georgia

Boston  
Massachusetts

Charlotte  
North Carolina

#### We Have for Sale

16 Fales & Jenks Spinning  
Frames, 256 Spindles.

8 Fales & Jenks Spinning  
Frames, 272 Spindles.

Bought in 1908 and now running, in good condition, can be purchased at a bargain.

Band drive, 2½" gauge, 1% ring and cast iron Holder, 49D spindles, 6" traverse Houghton Metallic Thread Boards.

Can be seen running in March.

Standard-Coosa-Thatcher Co.

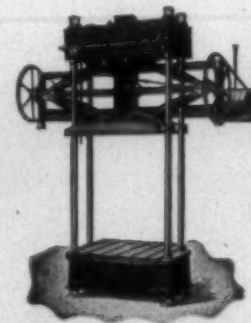
Piedmont, Ala.

#### WELL DRILLING AND DEEP WELL PUMPS

We do the engineering, and have had 33 years experience solving water problems satisfactorily for textile mills.

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Richmond, Va.

## BALING PRESS



Knuckle  
Joint

60 to 500

Tons

Pressure

Rapid

Simple

Durable

Established 1872

Let us tell you more about them.

Dunning & Boschert Press Co., Inc.

367 W. Water St.

SYRACUSE, N. Y.



## Fifteen Years' Review

(Continued from Page 65)

continually and for a while kept watchers at the corner above and below me.

A very amusing incident occurred when they sent one of their members to me to request a contribution for the families of the strikers who were in need.

Instead of refusing, I wrote them a check for \$50, which would, however, only be good when accompanied by \$50 checks of Thos. McMahon and John Dean.

Although McMahon and Dean had secured large sums from the strikers, neither was willing to give any of the money to relieve the strikers' suffering and my check was never cashed.

I published the incident in the daily papers and it awoke many of the strikers to a realization of my attitude as compared to that of McMahon and Dean.

The strike broke in September, when the strikers finally realized that McMahon and his gang did not intend to give them any money, even the amount of the union dues that they had paid in.

The 1921 strike was a major effort to unionize the Southern cotton mills and it will be many years before union leaders can erase remembrance of the deceptions and again cause serious trouble.

It was conservatively estimated that the 1921 strike cost the mill operatives of Charlotte-Concord-Kannapolis \$2,000,000 in wages and that during the two years prior to the strike the United Textile Workers collected \$250,000 as union dues in the Charlotte section, none of which did they give back during the strike.

On March 7, 1922, the United States Supreme Court heard rearguments on the test cases of the second Federal Child Labor Law, our new case of the Drexel-Furniture Company being the real case under consideration.

The rehearing was due to the new cases brought up and to the fact that there had been many changes in the personnel of the court. Former President Taft was now Chief Justice of the Supreme Court.

After hearing the arguments we had no doubt that the law would be declared unconstitutional.

In April, 1922, McMahon and the United Textile Workers had pulled strikes in many New England towns and in order to see first hand the working of his organization I went to New England and spent four days mingling with the strikers at Lawrence, Lowell and Pawtucket, and talking to those who could speak English.

I do not know that McMahon or Dean knew me by sight, but if my identity had been discovered I would have received rough treatment.

I walked with the strikers in their parades and talked to them and gained much information that will be useful in the future.

The outstanding facts appeared to be that very few knew why they were striking and that most of them

expected to be supported while idle.

On May 16, 1922, we received a wire stating that we had won our case and that the U. S. Supreme Court had, by a vote of 8 to 1, declared the second Child Labor Law unconstitutional.

Again a wave of abuse swept over the Supreme Court, who were declared to have nullified the will of the people, and I came in for a goodly share of the vituperation, but I was happy, and again the Federal inspectors packed their trunks and went home.

I knew that the fight was not over but had won a great and important point by establishing the fact that Congress could not directly legislate to control the labor of persons in the States.

I believed that a constitutional amendment giving Congress the right to prohibit certain kinds of labor was a far less serious matter than the establishing of the principles of the right to directly legislate.

Had it been established that Congress could prevent child labor by prohibiting the shipment of its products or by placing prohibitive taxes upon those who employed child labor, Congress could at will use the same power to fix the hours of labor and the wages paid, the education of the people or dominate the affairs of the States in a hundred ways.

I knew that a constitutional amendment was far preferable to either of the former Federal Child Labor Laws.

The National Child Labor Committee and Children's Bureau crowd were evidently dazed by the second knockout and did not make any move for some time, but I made frequent trips to Washington and kept close watch on them.

In January, 1922, there was a flood of bills introduced which contained constitutional amendments giving Congress the power to regulate child labor and in a moment of pessimism I predicted that one of them would be passed and would later be ratified by the States.

On January 18th a hearing was held before a sub-committee of the Senate Judiciary Committee and I sprang a surprise upon our opponents by presenting E. F. Carter, Chief Inspector for North Carolina, and A. H. Gibert, Chief Inspector for South Carolina, both of whom testified that the child labor law of their States were obeyed. W. L. Long, of Roanoke Rapids, spoke and I closed with an exposure of the manipulated statistics that had been presented by Miss Grace Abbott.

As Congress was to adjourn on March 2nd, there began a desperate fight to pass the amendment resolution an equally desperate effort on my part to delay its passage.

It required all the experience that I had acquired at Washington to keep stumbling blocks in its way but I won and Congress adjourned without its enactment.

I knew that I had only delayed its passage but felt that every delay gave us an advantage which later proved to be well worth while.

Except for answering attacks upon the Southern cotton mills and prodding the Charlotte Labor Herald

occasionally, I had a rather quiet spring and summer and was glad of it, for I underwent a serious sinus operation in April and was under the weather.

In July I purchased three-fourths interest in the Washburn Printing Company, which had almost since the beginning printed the Southern Textile Bulletin, and I later acquired the remaining stock.

My publication was getting so large that I needed to control the plant that did the printing and thereby be able to command service.

In September, 1923, Jas. F. Barrett, editor of the Charlotte Labor Herald, tried to pull a home-made strike in North Charlotte but it fell flat, and in order to detract attention from his failure he entered suit against me for alleged libelous statements.

The papers carried reports of the suit and my friends seemed alarmed but to me the whole matter was a joke, and as I predicted it never came up in court.

Barrett was never a bad man at heart and after they kicked him out of the Labor Herald I had a number of interesting talks with him.

The Charlotte Labor Herald was accustomed to give me an average of one column each week and it always amused me to stir up Jim Barrett and Tom Jimison. Their "Letter to St. Peter About David Clark" was really good.

The Labor Herald finally went on the rocks and some North Carolina politicians are now paying the notes for the money that was used in keeping it in operation.

Learning in September that the Children's Bureau of the United States Department of Labor were conducting an unfair campaign and spending Government money for the proposed Federal Child Labor Amendment, I filed a vigorous protest with Secretary J. J. Davis and had considerable correspondence but accomplished nothing.

Realizing that the advocates of the proposed amendment were going to start a campaign of lies about Southern cotton mills, we issued on November 22, 1923, another "Health and Happiness Number" of over 300 pages showing the true conditions of our mills and villages.

I went to Boston on January 1, 1924, and was there, on special business, for two months with the exception of the time I spent in Washington.

I made use of the time to get a more intimate knowledge of the manufacturers of textile machinery and supplies, and my reports entitled, "Seeing the Shops," were very well received by our readers.

On my first visit to Washington, in January, 1924, I realized that it would be impossible to prevent the passage of the Federal Child Labor Amendment and therefore took the only route left, which was to play for delay, but could accomplish little along that line.

I went to one hearing before the Judiciary Committee and it was with difficulty that I could arrange for another date for my witnesses.

At the first hearing a tall, slim man arose and asked permission to file a brief in opposition to the amendment without reading same.

A lady who was opposed to the amendment came over to me and whispered excitedly, "Did you see that? Do you know who that was?"

It was Gray Silver, Washington representative of the National Farm Bureau Federation, a man who had almost always been found on the side of the bureaucrats and radicals.

The fact that Gray Silver had opposed the amendment, even reluctantly, showed that there was strong farmer opposition developing and a great light seemed to spread out before me.

I told our friends to see that pre-functory amendments eliminating farm labor and reducing the age limit were offered and recorded for future use.

I knew that Miss Abbott and her gang were too sure of their power to allow the amendments to be adopted and I did not think she had sense enough to realize the after effects.

I appeared at the adjourned hearing the next week, and although so ill that I had to be granted permission to sit, I created considerable heat on and off the committee but I never worried about the amendment after the appearance of Gray Silver, for I knew the latent power of the farmer.

The Amendment Resolution passed the House and went to the Senate where a hearing was refused but opponents tied it up for awhile.

After carefully studying the situation I went to Washington and sent my card to a certain Senator.

When he came out he said, "The amendment can be delayed and it is possible to prevent its enactment at this session but the pressure is very heavy."

I said, "Senator, I came here to tell you to let it go. I think the time has come to go to the mat with the bureaucrats and I am confident that I can give them a licking from which they will never recover."

He was pessimistic about success but withdrew the active opposition to the amendment.

As soon as I could get back to Charlotte I began to plan a national campaign in opposition to the amendment, which I soon inaugurated.

While in New England I had studied their mill situation and believed that a large portion of their trouble was due to retaining antiquated equipment far beyond its real usefulness.

I made up my mind then that I would do my best to sell the Southern mill the idea that it did not pay to retain old machinery.

Beginning May 1st, we ran a series of articles weekly for fifteen weeks dealing with the latest and most improved equipment for each department. We believe that it did a great deal of good and will have an effect in the future.

Even before the Federal Child Labor Amendment resolution was adopted by the Senate on June 10th, I had covered a good portion of the country and my campaign was mapped out.

I aided in organizing a central committee in Washington and in



getting their finances, but took the precaution of saving \$5,000 with which to conduct a publicity bureau of my own from Charlotte. Our enemies accused me of expending over \$1,000,000 but the truth is that the Washington committee had a total of less than \$25,000 and I personally expended under \$5,000.

The successful campaign against the Federal Child Labor Amendment is too new to require any repeating, but it was interesting from beginning to end.

It was the most complete reversal of sentiment in the history of the United States and was due largely to publicity which made people realize that they had been grossly deceived about child labor in Southern mills.

Only four States ratified the amendment and one of them was as ready to reverse its action.

The campaign required practically all of my time for eight months, but I thoroughly enjoyed it, as I formed acquaintances and friends in every section of the United States and I played a part in breaking the back of a great effort to centralize power in Washington and to eventually destroy our system of Government.

It gave me a great respect for the powers of observation of the American voter, but it also showed me the weakness of our system of representation at Washington, for it showed that our Congressmen and Senators from many States voted unanimously for the amendment only to later see their State Legislature almost unanimously reject same.

The summer of 1925 was one of depression in the cotton manufacturing business and I realized that it was necessary to have an extensive curtailment in order to reduce the accumulation of goods and yarns.

I set out to get a period of curtailment by at least 10,000,000 spindles and succeeded but am not saying much about details because I have since then received several visits from Government agents and they seem to have an idea that I violated some law.

I knew that I was on thin ice but the effort to secure curtailment was necessary. I stayed within the law and have no fear of the ultimate result of any suit that may be brought.

Recently I have had a controversy with certain departments or bureaus at the University of North Carolina. I am old fashioned enough to believe that a university should confine its activities to education and not seek to cure the social and economic evils of a State. The country is sick of Federal and State bureaus and should not have the added burden of college and university bureaus.

Thus we reach the end of our first fifteen years.

We have tried to make them fifteen years of service to the cotton mills and the cotton mill people, including the operatives.

We have been reasonably suggested from the standpoint of a business enterprise and are now

rated as one of the leaders among the textile journals.

Our greatest asset and the one we prize the most is friendship and love of the mill men of the South for the Southern Textile Bulletin.

No other journal enjoys the same personal touch or the same loyalty.

We have won the confidence of the cotton mill men of the South and we hope that in the future we will so conduct our publication as to retain that confidence.

### Vocational Students Study Rayon

**T**he Trade and Industrial Section of the North Carolina Vocational Department is striving to make its work throughout the State as effective as possible. To this end it has instituted and promoted classes among the adult workers of North Carolina in subjects that would aid them in their daily occupations, according to a statement by George W. Coggin, State Supervisor of Industrial Education.

These classes have been formed in carpentry, plumbing, sheet metal work, auto mechanic, etc. Groups of ten to a dozen men in these various lines of industry throughout the State get together each year for twenty nights or more and study the theoretical side of their job. The mathematics and theory which they learn in the class room enables them to more clearly visualize the job itself.

Naturally, one of the leading types of class in the State is the textile class. The textile industry is predominant in North Carolina and most of the vocational night classes are organized in this trade. Some of the leading subjects in the textile classes are carding and spinning, weaving, designing, etc.

#### Class in Rayon Manufacturing.

The State Department is trying to keep up with the trend of the times in the textile game and some of the representatives of the Trade and Industrial Section have organized a special class in rayon manufacturing. This class is being taught at Spray. Representatives were able to secure the general manager of the Carolina Cotton and Woolen Mills Company to handle this class. This company controls eleven large plants, putting out a great variety of products, and the entire organization is owned and controlled by Marshall Field & Co., of Chicago.

This rayon class, under the teaching of L. W. Clark, the general manager, is making a very thorough study of this new fibre. The class is limited to about twelve persons, consisting mainly of superintendents and leading foremen. The class began its study with the actual making of rayon fibre, both from cotton linters and from wood pulp. They have studied the mechanical and chemical processes entering into the manufacture of the fibre, as well as the spinning and sorting problem entering therein. Following this up, they have used actual samples to show the weaving of rayon yarns. The types of fabrics and the

finish of these fabrics. Wherever possible, the actual material has been displayed and discussed in a very practical fashion. In addition to this, all the various processes of manufacturing and all the theories of handling have been discussed pro and con.

Below is given an outline of the class work in about the order in which they were studied:

The size and growth of the artificial silk or rayon industry.

Study of domestic production by manufacturers.

Study of world production by countries.

Importers of rayon.

Consumption by industries.

Comparison and study of different processes for producing artificial silk, namely, the regenerated, cellulose group, viscose, nitro-cellulose, and cupra-ammonium; also the cellulose acetate types.

Raw material used—linters and wood pulp—studied from samples.

Various processes, chemical and mechanical, for each type of product.

Production control by plant laboratories.

Different size and make-up of rayon yarn—coarse and fine filaments.

Spinnerettes studied from samples of types used.

Difficulties in producing perfect and uniform yarns.

Inspection and classification.

Inherent weaknesses of rayon and comparison of qualities made by different processes.

Preparation of yarns for weaving.

Spooling and copping machines.

Beaming or slashing.

Dyeing—equipment and methods of handling rayon yarns.

Weaving—Shuttles, temples, tension, pick-outs.

Shiners—Cause and prevention.

Finishing — De-sizing, washing, softening, drying, calendaring; effect of heat; packing and put up.

Types of fabrics, especially cotton and rayon mixtures. Study of those which may be produced in cotton mills with standard equipment and with least possible change in machinery or processes.

Fabric constructions; comparison of good fabrics with poor and discussion of troubles resulting from low grades or inferior quality.

Designing—With illustrations of types of decorative weaves best suited for rayon mixtures.

#### Method of Teaching.

The instruction has been very largely based on reading selections from books and magazines relating to the various subjects, followed by general discussions and questions emphasizing the various phases under consideration. The books and magazines used are indicated below:

Artificial Silk and Its Manufacture—Foltzer.

Rayon Supplement—Sept., 1926—Textile World.

The Story of Rayon—The Viscose Company.

Artificial Silk—The Tubize Artificial Silk Co. of America.

Special Articles on Rayon in The Textile World, American Wool and Cotton Reporter, Southern Textile Bulletin, Cotton, and Its Products, Daily Trade Record, Journal of Commerce, Manchester Guardian, etc.

#### Rayon an Outstanding Success.

Rayon, which was formerly known as artificial silk, is the outstanding marvel of the textile world. It is the only fibre developed by man and from a very small beginning just a few years ago, it has now reached such proportions that it is estimated that over 70,000,000 pounds of rayon will be produced this year. It is being used in practically every type of fabric and is becoming increasingly popular.

#### Wm. H. Barnhardt with American Cellulose and Chemical Mfg. Co.

William H. Barnhardt has accepted a position with Southern offices of the American Cellulose and Chemical Company, at Charlotte. He will assist Todd B. Meisenheimer, Southern representative in sales and technical services of Celanese yarns. Mr. Barnhardt is a graduate of the textile department of N. C. State College. For some time he was with the Gibson Mills, Concord and was later in charge of dyeing and finishing at the Hobartson Manufacturing Company, Concord. He has also done laboratory and plant control work for a large dyestuff concern. Recently he has been studying the manufacture of Celanese yarns at the plant of the American Cellulose and Chemical Manufacturing Company, at Amcelle, Md.

#### Good Times Still With Us

The records of car loadings, of bank clearings, of automobile production and sales all bear out the notion of active business and well diffused prosperity. Mail order house sales also give evidence of the buying power throughout the country.

While the volume of trade is large, prices are inclined to sag. This is true of most lines. Recently there was a reduction in tire prices. Ford just made a substantial downward revision, and steel quotations have been shaded for some weeks.

All this is proof of the lack of inflation. And inflation, according to as good an authority as President C. E. Mitchell, of the National City Bank of New York, is the last thing in the world that business men and bankers wish to see, since deflation follows inflation. In the language of Mitchell, deflation is a "head-ache."

With all hands working against inflation that danger hardly seems likely to occur. Whether persistent expansion of security loans and of installment buying credit constitutes a different brand of inflation is another question. Certainly it is not the kind that calls for sudden liquidation.—Boston News Bureau.

E. G. Waits, formerly of Goldville, S. C., is now located at Gaffney, S. C.



## Marshall Field & Co. Mills

Chicago, Ill.—Marshall Field & Co., doing a vast and well integrated business in the importing, manufacturing, wholesaling and retailing of dry goods, is in its way unique, and not strictly comparable with any other firm in the same field. It has never been the company's policy to give out sales or other figures, though some indication of net was furnished last September, when "bondholders were substituted for a landlord" by issuance of \$17,500,000 of 4½% debenture bonds, proceeds from which were largely devoted to purchase of retail store buildings in Chicago from the Marshall Field estate.

On the books of the wholesale branch of the business are the names of 30,000 or more merchants located from coast to coast, with whom about 500 salesmen maintain constant contact. These numerous retail outlets give Marshall Field & Co. unrivaled opportunity to keep in close touch with the drift of popular taste and demand in dry goods, and quickly to sense any change in this regard. New ideas gathered through the wholesale organization are quickly transmitted to the company's textile mills, some 30 in number, which form not the

least remarkable part of this far-flung organization.

Early this century Marshall Field & Co. pioneered in the opening of cotton mills in the South for the production of quality goods. At that time Southern mills were producing only the coarsest cloths.

The venture proved highly successful. While New England textile manufacturers struggled with the difficulties consequent upon the growth of foreign labor elements among their operatives, Marshall Field & Co. capitalized the latent intelligence of the pure American stock in the South and steadily made them into skilled operatives. Today the company has a string of mills through the northern tier of counties in North Carolina. In the progress of cotton from the field to the customer's back, bed or table it does everything except grow it and gin it.

About ten years ago the New England manufacturers who at first had scoffed began to move South themselves.

Another successful venture in North Carolina has been the opening of a carpet factory. During the war the wages of weavers at Philadelphia carpet factory reached \$125 a week, and are still very high compared to the Southern scale. With the aid of a few highly skilled men

from the Philadelphia factory, production was begun in the North Carolina plant on Axminster rugs embodying the company's own ideas as to color and design, with the result that its output is sold ahead for months.

The vast size of operations permits considerable economies. Activity in carpets comes in January and July; they wholesale business reaches its peaks in March and April and in September and October, while the retail business is most active in May and June and in November and December. In practice considerable seasonal transference of forces between the wholesale and the retail branches is possible, with consequent more economical handling of the business as a whole.—Boston News Bureau.

### Mill Employees Get Bank Accounts.

Harriman, Tenn.—The Harriman Hosiery Mills has presented a savings account to each of its more than 50 employees. The presentation was made at the close between a recent get-together meeting between the employees and executive staff.

At the close of the meeting, each employee was given a savings account book, bearing his or her name.

This mill recently established an

"Opportunity School" for its employees. Adult employees of the mills may attend night school and in this way resume their studies toward high school diploma. Subjects are taught similar to those taught in the average public high school.

### Woolen, Cotton, Activity Below Normal in January.

Washington, D. C.—Industrial activity in January was slightly smaller in volume than in December; distribution of commodities showed a seasonal decline, and activity in the cotton and woolen industries was below normal for this season of the year, a general business summary made public by the Federal Reserve Board for the months of January and February shows.

Sales of department stores and mail order houses, the report states, showed more than the usual seasonal decline in January, but were larger than in January of last year. Wholesale trade declined considerably and was smaller in volume than a year ago.

Stocks at department stores showed more than the usual increase in January and were about 11 per cent larger than at the end of January, 1925. Wholesale prices remained practically unchanged from December to January.

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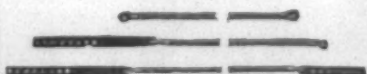
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## New Type Adjustable Grid Bar

(Continued from Page 54)

bars can be adjusted separately, giving flexibility in dealing with a wide range of grades of cotton.

A long series of tests made in mill operation has shown very clearly the advantage, both as regards quantity and quality of the waste, of the new grid bars as compared to the old type.

We believe that if you install these grids in one line of pickers that the results will be more effective than any argument we might offer.

The bars are triangular sections made from cold rolled steel and have smooth sharp working edges. They may all be removed for cleaning without lifting out the beater.

This new type of adjustable grid bar can be quickly applied at a low cost to practically all makes of pickers. All the information necessary when ordering, is the full diameter of the beater and the exact measurements between the frame sides at the point where the cheeks are to be attached.

In addition to the new sixteen bar grids for 16-inch diameter beater as shown in above cut, we can furnish grid bars for 18, 20, 30 and 40-inch diameter beaters. The 16-inch bar type is arranged in two sets of eight bars each; the 18-inch bar type in two sets of nine bars each; and the 20-inch type in two sets of ten bars each. On the 30-inch bar type, we have three sets of ten bars each and on the 40-inch bar type, four sections of 20 bars each, adjustable in sets of ten.

## North Carolina Leading Massachusetts in Spindle Hours.

Charlotte, N. C.—From an insignificant position in the textile industry to leadership of all of the States in point of active spindle hours—that is the record of the textile industry of North Carolina.

In 1900, cotton mills operating in North Carolina, says Mr. Marshall, had a total of slightly more than 1,000,000 spindles. Today there are nearly 400 mills in the State with more than 6,000,000 spindles, employing 80,000 workers.

"The State of Massachusetts," says Mr. Marshall, "still has a lead in the total number of spindles with 11,614,824; however the mills of North Carolina operate on fuller time, many of them working two shifts of operators, so that in total active spindle hours, North Carolina recently held a position ahead of the Bay State."

## Rose Colored Rayon Bedspreads Most Active.

Cleveland, Ohio.—Rayon wrinkle bedspreads in rose comprise 50 per cent of those sold at the May Co. store here, according to an official in that department. Price ranges from \$5.75 to \$12.50 enjoy a good demand in this article, it is said here.

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Hart Products Corp.	—	—V—	—
Hetherington, John & Sons, Ltd.	101	Victor Ring Traveler Co.	—
H. & B. American Machine Co.	96	Vogel, Joseph A. Co.	—
Hollingsworth, J. D.	86	—W—	—
Hopedale Mfg. Co. (Colored Insert)	—	Washburn Printing Co.	86
Houghton, E. F. & Co.	41	Waterall, Wm. & Co., Inc.	116
Howard Bros. Mfg. Co.	90	Watts, Ridley & Co.	121
Howard-Hickory Co.	117	Wellington, Sears & Co.	95
Hunt, Rodney, Machine Co.	125	White, Fred H.	84
Hunter Mfg. & Commission Co.	91	Whitn Machine Works	3
Hyatt Roller Bearing Co. (Insert)	—	Whitinsville Spinning Ring Co.	108
—I—	—	Wickwire, Spencer Steel Co.	—
Imperial Rayon Co.	72	—(Colored Insert)—	—
Industrial Fibre Co.	47	Williams, J. H. Co.	82
International Salt Co., Inc.	118	Wilts Veneer Co.	123
—J—	—	Wolf, Jacques & Co. (Colored Insert)	—
Jacobs, E. H. & Co.	—	Woods, T. B. Sons Co. (Colored Insert)	—
Johnson, Charles, B.	50	Woodward, Baldwin & Co.	120
Jordan Mfg. Co.	—		



## Letters of Congratulation

(Continued from Page 58-d)

flatter, but we believe that David Clark was called for his special work; and standing a man four square he has answered the call and met every condition of the call. Long may he live and many, many more anniversaries may the Textile Bulletin have.

Sincerely,

R. A. WHATLEY,

Vice-Pres. and Mgr. Bremen Looms, Bremen, Ga.

I note that on March 4th you will issue the Fifteenth Anniversary Number of the Southern Textile Bulletin, and I should like to express my high appreciation of the valuable work you are doing for the textile industry. You are impartial to both the employee and the employer; your Bulletin contains much helpful information.

Best wishes.

Yours very truly,

LEROY A. WERTS,

Sec. and Asst. Treas. Mills Mill, Greenville, S. C.

I saw in your February 11th edition of the Bulletin that you will issue the Fifteenth Anniversary Number of the Southern Textile Bulletin on March 4th, and, having been a subscriber during the period, I want to tell you how much I appreciate your efforts in connection with all matters pertaining to the success and advancement of the cotton mill industry in the South and to congratulate you upon your wonderful success in your efforts.

You have my best wishes for many more years of constructive usefulness to the mills of the South and of happy prosperity for yourself and the Bulletin.

Sincerely yours,

L. A. WILLIAMSSON,

Sec. White-Williamson Co., Graham, N. C.

We wish to extend cordial birthday greetings on the occasion of your fifteenth anniversary, and wish to convey to David Clark our appreciation of his efforts in the past in his stand for the good of our industry, and may he continue in the good work.

With very best wishes, we are,

Yours truly,

T. V. MOSELEY,

Sec.-Treas. Kinston Cotton Mills, Kinston, N. C.

I note that on March 4th you will issue the Fifteenth Anniversary Number of the Southern Textile Bulletin, which will contain a very comprehensive survey of the past fifteen years in the textile industry of the South.

I want to take this occasion to say that I have been a reader and an admirer of the Textile Bulletin in the many way in which its editor has stood up and fought for the interest of the textile industry and the textile employees especially in the South. Ever since the first issue was printed Mr. Clark has been active in carrying both of the Federal Child Labor Laws to the United

States Supreme Court, where they were declared unconstitutional and of course, any right thinking person not biased by the labor agitator would have to admit that he was right in the stand he took against the unjust legislation that has been tried to be forced upon the manufacturing industry. We feel grateful to Mr. Clark that he had the courage, manhood and backbone to wage a successful campaign against its ratification.

In my mind the Textile Bulletin is the best textile paper that comes to our office and we hope that we may be able in our humble way to enable him to stand up in the future and fight for the rights of the textile industry of the South and for the interest of the textile operatives. I hope the writer will live to send in another letter on the fiftieth anniversary.

Very truly yours,

R. J. BROWN,

Gen. Mgr. Santee Mills, Orangeburg, S. C.

Referring to your letter of the 11th, in which you ask for letters for your fifteenth birthday, beg to advise:

Of all the men I know, I know of no one who has done as much for the Southern cotton mills and their operatives as David Clark.

Yours ver ytruly,

W. L. PHILLIPS,

Supt. Social Circle Cotton Mills Co., Social Circle, Ga.

As we approach the fifteenth birthday of your splendid publication, I wish to express my appreciation for the Southern Textile Bulletin and its editor.

The writer has read and enjoyed a copy of each issue of your paper. I am sure that I get as much value for the subscription price of the Bulletin as for the same amount of money spent in any way.

My opinion is that the Southern Textile Bulletin, under the leadership of David Clark, constitutes one of the greatest forces for good that exists in the Southern textile field.

Yours very truly,

L. O. BUNTON,

Supt. Ruby Cotton Mills, Gastonia, N. C.

We want to congratulate you upon your approaching birthday. It was a happy day for the textile industry, especially of the South, when you came into being, for you have always stood for progress, intelligence and a square deal for our industry. We feel sure you can justly claim no small part of the credit for the wonderful development of the past fifteen years, so here's wishing you long life and an ever-increasing measure of success commensurate with the service you shall render.

Yours very truly,

J. G. GREGORY,

Sec. and Treas. Elizabeth City Cotton Mills, Elizabeth City, N. C.

It is with pleasure I take the opportunity to express the kindly feeling I have ever had toward the Southern Textile Bulletin and its editor. Being a subscriber almost from its inception, I eagerly look

forward to each succeeding issue for the pages of information and inspiration so faithfully gotten together and published in a most convenient and compact style, making it easily the leading periodical of its kind in the country.

I believe that every mill man, whether in a high position or filling any place in line of promotion, should know and appreciate the true value of the Bulletin in their work.

As for a man to "know his stuff" must get his theory from reading as well as experience from work I hope the younger men will not fail to realize the importance of this last statement.

Assuring you of my hearty support, I am,

Yours very truly,

L. L. HURPHY,

Supt. Osceola Mills, Inc., Gastonia, N. C.

In connection with your Fifteenth Anniversary Number, which I understand you are going to publish on March 4th.

It affords me much pleasure to state all of the cotton manufacturers are under deep obligations to your managing editor, David Clark, for the very efficient manner in which he has handled the proposed Federal Child Labor Amendment to the Constitution. Its defeat is largely due to his efforts.

I think your paper is doing a wonderful piece of work in promoting better relations between the employers and employees of this section and it is always a pleasure for me to commend the work that you are doing.

With best wishes, I am,

Yours very truly,

E. C. DWELLE,

Vice-Pres. and Asst. Treas. Chadwick-Hoskins Co., Charlotte, N. C.

No one who has been connected with the textile industry of the South for the past ten years but what feels indebted to Mr. Clark, managing editor of the Southern Textile Bulletin, for his valuable and unanimous efforts to keep united that friendship which the South enjoys that exist between employer and employee.

David Clark is a mill man's friend, be he owner or operator he is a stone wall to the agitator who tries to break this friendship.

Respectfully,

W. E. HAMMOND,

Supt., Balfour, Mills, Inc., Balfour, N. C.

You naturally are anticipating your forthcoming Fifteenth Anniversary Number, and fifteen years of successful publishing is worthy of commendation, and what is still more worthy of approval is the steady improvement in your paper, and the ever increasing service that you have and are rendering to the textile mills.

Not only is it a pleasure to us to do our part with you in your endeavors, but from a personal standpoint, it has been our privilege to have close acquaintance with Mr. Clark, through these years, and it seems to us that his personal service through the textile mills should

come in for special commendation in this your Fifteenth Anniversary Number.

May you have many times fifteen years in which to carry on.

Very truly yours,

HARRY C. COLEY,

Secy. and Treas., Howard Bros. Manufacturing Company, Worcester, Mass.

We wish to congratulate the Southern Textile Bulletin on its Fifteenth Anniversary.

The writer has known David Clark, editor, for a great many years, and he certainly deserves great credit for the splendid textile paper that he publishes.

We are also acquainted with many other members of Mr. Clark's staff and have always found them ready and willing to assist the textile industry and the manufacturers of supplies in every way possible.

It has been a source of delight to the writer to read the editorials of this paper.

Wishing the Southern Textile Bulletin many happy future years, we remain,

Very truly yours,

AMOS M. BOWEN,

Treas., U. S. Ring Traveler Co., Providence, R. I.

I am very glad of the opportunity given me through the Fifteenth Anniversary Number of the Southern Textile Bulletin to express my sincere appreciation of the efforts of its editor, David Clark, on the behalf of the textile industry of North Carolina and of the entire South. I believe that I voice the sentiments of the cotton manufacturers particularly when I say that he and his paper have rendered real constructive service not only to the mill owners but to the operatives as well, and that his excellent work is appreciated.

I commend the conduct of your paper and wish for it a fuller measure of success and usefulness in the future.

Very truly yours,

S. F. PATTERSON,

Treas. and Mgr., Roanoke Mills Co., Roanoke Rapids, N. C.

We are glad to continue our advertising patronage of your journal, since we find it is read in every Southern mill that we visit. We also appreciate the personal work of Mr. Clark in backing up the textile industry whenever it is assailed by ignorant outsiders.

Very yours truly,

G. O. DRAPER,

Vice-Pres., Hopedale Manufacturing Company, Milford, Mass.

Please allow me the honor of congratulating you on your Fifteenth Anniversary.

No doubt you have one of the most interesting textile paper published today.

I wish especially to mention the splendid work and untiring efforts of your editor, David Clark, especially in bringing about the defeat of the numerous Child Labor Bills.

Personally, I feel that the editor has shown a sense of fairness to the mills and the operatives alike and deserves many thanks and consideration of the interest he has shown.



Hoping for you and yours the greatest success for the future. I am,

Yours very truly,  
W. H. GIBSON, Jr.,  
Mgr., Cascade Mills, Inc., Mooresville,  
N. C.

Please accept our congratulations on the Fifteenth Anniversary of your paper, which occurs on March 4th, 1926.

For any lines that have to do with the textile trade, we believe your paper to be one of the best advertising mediums in the South, evidenced by the fact that we have carried an advertisement with you for a number of years.

Yours very truly,  
P. J. McMAHON,  
Secy.-Treas., The Textile Mill Supply Co., Charlotte, N. C.

Here's congratulations on past attainment and sincere wishes for the future usefulness of the Textile Journal that leads. It has long stood as a defender of the rights of the Southern cotton mills, and in my judgment the Southern cotton mill industry owes more to this paper and its able editor than to any other medium. I have been a subscriber and constant reader of the paper from its first issue because I like it best of all. I am

Cordially yours,  
GEO. F. BRIETZ,  
Supt., Selma Cotton Mills, Selma,  
N. C.

I think it is only fitting and proper at this time for me to write and express a word of appreciation of the Bulletin and especially of its managing editor, Mr. David Clark. Through the Bulletin and his efforts in other directions Mr. Clark has contributed greatly to the development of the textile industry in the Carolinas in the past few years and his work towards promoting better relations between employer and employee is especially worthy of note. His untiring and intelligent efforts to defeat the Federal Child Labor Amendment to the Constitution was a splendid piece of work and we are all his debtors for it. I am glad of this opportunity to commend Mr. Clark and the Bulletin.

Yours very truly,  
B. B. GOSSETT,  
President Chadwick-Hoskins Company, Charlotte, N. C.

We cannot resist the temptation to acknowledge worth when real worth presents itself. This we wish to do by congratulating you on your fifteenth anniversary of the Southern Textile Bulletin.

We know of no publication that is received with such interest in our office, and we have almost come to the habit of relying solely on it for textile news, and its editorials are always based on common sense and in the real interest of all the people, both employer and employee, and your success in handling the Federal Child Labor matter is to be highly commended by all concerned, as well as maintaining a general principle that should dominate in our government. That is, the leaving of something to the States.

Wishing you many future years of continued prosperity and activity, we are,

Very respectfully,  
W. B. MOORE,  
Pres. and Treas. Neely Mfg. Co.,  
Travora Cotton Mills, York, S. C.

The writer personally wishes to compliment your Bulletin upon the very aggressive part it has taken in recent years for the textile industry in the South. We certainly feel that you have kept well to the fore in this improvement and have had a very vital part in its successful development.

We also feel very sincerely that Mr. Clark, your managing editor, has served the South in a very sincere, loyal and efficient manner in combatting the various influences which have endeavored to creep into this section of the country and which, if allowed to run without restriction, have a very serious effect upon the future of this development of the industry.

Kind personal regards to yourself and to Mr. Clark, and wishing you as great a success in the years immediately ahead of us as you have enjoyed in the past, I am,

Yours very truly,  
LEONARD S. LITTLE,  
Genl. Supt. Pacific Mills, Lyman,  
S. C.

On this, the fifteenth anniversary, of the Southern Textile Bulletin it gives me pleasure to express my appreciation of the efforts and results obtained for the textile industry of the South by David Clark, its editor.

In my opinion Mr. Clark stands alone as the greatest proven friend of the Southern cotton mill operatives as well as managers. The services rendered in the past by the Southern Textile Bulletin through Mr. Clark in defeating the unjust laws aimed at our industry alone justify its future existence.

A great pleasure lies in knowing that we have such a champion for our cause—to go along with us in the years to come.

May I wish for Mr. Clark and the Bulletin both many happy returns of the day.

Very truly yours,  
E. L. SKIPPER,  
Supt. Kershaw Cotton Mills, Kershaw, S. C.

It is a great privilege to congratulate you on your fifteenth birthday and to extend to you the hope that there are still years and years of active service before you.

The Southern Textile Bulletin has always stood for advancement and it has always been the champion of progress. We know that it will continue to lead in this field.

With our heartiest best wishes.  
Sincerely,  
J. EBERT BUTTERWORTH,  
Treas. H. W. Butterworth & Sons Co., Greenville, S. C.

I desire to congratulate you on your fifteenth anniversary.

I have been a constant reader of your publication since its first issue. Believe you have done a great deal for all those connected with the

cotton manufacturing industry.

It is our opinion that very many cotton mill operatives, overseers and even superintendents have learned much from the technical articles that you have published from time to time and that they have been inspired thereby to do better work and make real progress.

Wishing you continued success, I am,

Yours very truly,  
FRED H. WHITE.

I am writing to express my appreciation for the great work rendered by you and your Bulletin to the textile industry of the South for the last fifteen years.

Your Bulletin has been one of the leaders in the fight to bring about a better spirit of friendly co-operation between the Southern textile managers and operatives, and I feel confident that you have the hearty co-operation of both managers and operatives in the great work you are doing for the cotton mills of the South.

Wishing for the Bulletin continued prosperity, and for the editor health and happiness throughout the coming years, I am,

Very truly yours,  
J. W. CATES,  
Supt. Edenton Cotton Mills, Edenton, N. C.

We certainly want to offer you our hearty congratulations on the successful completion of fifteen years of constructive work in the textile field, and want to wish for you much success and happiness in the years to come.

Yours very truly,  
AGNEW H. BAHNSON,  
Mgr. The Bahnson Co., Winston-Salem, N. C.

We wish to extend to you on your fifteenth birthday our very best wishes and to express our appreciation of the many kindnesses which you have extended to us.

As advertisers we have been very much impressed with the hearty co-operation given us by every member of your organization, and we assure you that your service has been of great value to us.

We trust that this birthday will be a forerunner of many others which will be equally enjoyable.

Yours very truly,  
E. A. TERRELL,  
The Terrell Machine Co., Charlotte, N. C.

We have noted from announcements you are going to publish an Annual Number on your fifteenth "birthday" on March 4th, and we are simply writing to express our congratulations.

The splendid success of the Southern Textile Bulletin is particularly gratifying to us on account of the fact that the writer was a member of the Southern Textile Bulletin's staff immediately after its birth, just fifteen years ago. In addition, we would also say that the benefits received by our company through using your publication as a publicity agent for bringing our products to the attention of the

mill men have been all that we could desire. Also, through the past fifteen years your outspoken stand on many matters of interest, not only for the textile trade but for the welfare of every one, has received our hearty approval.

May the Bulletin live to continue this work through all the years to come.

Yours very truly,  
HAMPTON SMITH,  
Sou. Mgr. Steel Heddle Mfg. Co.,  
Southern Plant, Greenville, S. C.

I wish to take this opportunity to congratulate you upon having reached your fifteenth anniversary, and to express the hope that you may have many happy returns of the day.

I would like to say in this connection that, in looking back over our records, I find that our company has been running our advertisement in your paper continuously for fourteen of these fifteen years, which fact in itself would seem to indicate very clearly our appreciation of the service you render as an advertising medium.

As to the editorial policies of the Bulletin, we have always been in entire accord with every stand you have taken. In other words, according to our judgment, you have always upheld what we considered to be the right side of every question.

Again wishing you many happy returns of the day,

Yours very truly,  
D. H. WALLACE,  
Sou. Agent The Keever Starch Co.,  
Greenville, S. C.

I understand that your Fifteenth Anniversary Number will appear this week. I want to take this method of congratulating you and extend to you my hearty approval of the steps that have been taken through your Bulletin to defend the cotton manufacturers of the South.

If there is a man in the South who should be appreciated it is David Clark, as he has played the game on all subjects without fear or favor.

We should say a man who has played with the sons of working men knows the working conditions of our Southern mills. He, like myself, started in the mill business sweeping the floors, and it has given him a rise to a position that understands the working man's ideas.

No man has been so intensely important to our Southern industry as Mr. Clark, and I hope that his fifteenth anniversary may be duplicated with the greatest of success.

Very truly yours,  
T. A. HIGHTOWER,  
Mgr. Kendall Mills, Inc., Edgefield, S. C.

We congratulate you on reaching your fifteenth birthday. The writer has been one of your advertisers almost from the beginning of your publication, and we are frank to state that we believe that you cover the Southern textile field in such a manner that it reaches the majority of men interested in textiles and which makes your publication



highly valuable as an advertising medium.

Your editorials and efforts are appreciated by not only the textile manufacturers, but by all those who use your publication for advertising.

We wish for you a continued success. We remain,

Yours very truly,

GEO. W. PRITCHETT,  
Sou. Mgr., Charlotte Office, Morse  
Chain Co., Charlotte, N. C.

I wish to extend to you my heartiest congratulations on this, the fifteenth birthday of the Bulletin. Through the Bulletin you have been a wonderful help to the mills of the South. Especially, so we appreciate your work in defeating the various Child Labor bills. Wishing you many more years of usefulness and prosperity, I am,

Yours very truly,

M. E. GARRISON,  
Supt. Glenwood Cotton Mills, Easley,  
S. C.

We understand that on March 4, 1926 you will publish the Fifteenth Anniversary Number of the Southern Textile Bulletin.

We take this occasion of congratulating you on your coming birthday. We read the Bulletin with great interest.

We find your Directory of the Southern Textile Mills of great value to us and use it constantly.

Yours very truly,

E. P. COLES,  
General Electric Co., Charlotte, N. C.

Allow me to express my sincere congratulations to you on your Fifteenth Anniversary of the publication of Southern Textile Bulletin. Your fair and fearless stand for the Southern manufacturers, and the employees also, must always stand out as showing you as one to "Keep the Faith."

Yours very truly,

JOHN L. DAVIDSON,

I am glad to note that on March 4th you will publish the Fifteenth Anniversary Number of the Southern Textile Bulletin. I wish to express to you my appreciation of your paper. I have been a constant reader every since its first year as a paper. I like the spirit of its editorials. I admire a man like Mr. Clark, he has never failed to stand for the things that are right.

The Southern Textile Bulletin has done more for the cotton mills of the South than any other paper. I believe that both worker and employer can say this without any doubt.

Wishing for you many more prosperous years, I am

Yours very truly,

A. P. BRIGGS,  
Supt., Osage Manufacturing Company, Bessemer City, N. C.

Mgr. Supt., Savona Manufacturing Company, Charlotte, N. C.

I note from the pages of the Bulletin that you are to publish the Fifteenth Anniversary Number of the Southern Textile Bulletin soon, and I should like to congratulate you at

the end of your fifteenth year as an editor.

I have kept in touch with several Textile papers during the last ten to fifteen years, and I have read after no one, in whom I have greater confidence as a Textile News Editor. Your advice, through the pages of your paper, on all the textile problems that have confronted the management and the laborer have always been sane, sound and fair to all involved. I should like to say further that the Southern cotton manufacturing industry is due you a vote of thanks for the work you have done in establishing the fact throughout the United States that we are able to handle our labor situation without Federal supervision.

Wishing you many more years of successful editorship, I am

Very truly yours,

J. S. STROUD,  
Supt., Erwin Cotton Mills Co., Mill  
No. 3, Cooleemee, N. C.

We are looking forward with much interest to your Fifteenth Anniversary Number. From all indications it should prove to be an outstanding feature of 1926 publications.

Yours very truly,

C. E. WATSON,  
Manager, J. H. Williams Company,  
Millbury, Mass.

The constructive activities of the Southern Textile Bulletin, stretching over a good many years past, reflects the greatest possible credit upon the high aspirations and purposes of its editor. It has seemed to us that the defeat of the iniquitous proposed Twentieth Amendment to the Constitution of the United States has been brought about principally through the intelligent dissemination of information concerning the covert, insidious objects of those who have proposed the amendment. David Clark revealed not alone the underlying unpatriotic purpose of the amendment, but awakened for the first time the people of the United States to the consequences. He deserves the gratitude of all public spirited and patriotic citizens in saving them from such centralization of government activities at Washington as this country has never yet experienced.

He has let in the light of day upon the activities of those who have endeavored to organize the cotton mill operatives of the South. It is strange the latter are willing to listen to self-seeking agitators who have cheated them and deluded them in the past to their own lasting sorrow and who have nothing to offer except strife, suffering and untold losses to the very people whom they claim to represent and serve.

It seems to us the cotton manufacturers of the South owe a debt of gratitude to the Southern Textile Bulletin for its alertness in challenging such propaganda of misrepresentation, for instance, as that which found its way recently into the columns of the religious press of the South. Mr. Clark has done much to broadcast the activities of Southern cotton mills in welfare work. The mills have too long re-

mained silent in this connection, for possibly they have felt what they have endeavored to do and have would speak for itself. It is only through publication of facts with reference to their constructive and beneficent interest in and attention to the welfare of their employees that the public at large can become cognizant of these remarkable and commendable activities. It is unfortunately the fact that maudlin misrepresentation such as professional uplifters indulge in, is given far more publicity in the columns of the press than accounts of such fine work as has been done in almost every mill community in the South for those employed in cotton mills.

For our part, we feel that David Clark and the Southern Textile Bulletin have earned a debt of gratitude from the cotton spinners in the South and he and his paper have our very best wishes for continued success.

Very truly yours,

PHILLIP S. TULEY,  
Pres. and Treas. Louisville Cotton  
Mill Co., Inc., Louisville, Ky.

Permit us to extend sincere congratulations on your fifteenth anniversary. The work that you have done since your first issue came off the press, not only for the industry itself but equally as much for the operatives, has been of inestimable value.

You have our best wishes, and we trust that the future holds many good things in store for you.

Very truly yours,

A. M. DIXON,  
Treas. Dixon Mills, Inc., Gastonia,  
N. C.

David Clark, the man and his paper, The Southern Textile Bulletin, stands out as one of the most constructive forces, if not the most constructive force, we have in labor and textile circles as well as human uplift, that we have in the South today.

Mr. Clark is exceptionally clear and sound in all issues, always standing for the right regardless of the consequences.

Yours very truly,

C. M. BAILEY,  
Treas. Lydia Cotton Mills, Clinton,  
S. C.

We wish to extend our congratulations on your fifteenth anniversary and to wish you many years of continued success for yourself and the Southern Textile Bulletin, which we have come to look upon as the foremost textile paper of the South.

Yours truly,

W. D. BRIGGS,  
Sec. and Treas. Caraleigh Mills Co.,  
Raleigh, N. C.

We fully appreciate the great service that David Clark, editor of the Southern Textile Bulletin, has rendered the cotton manufacturers of the South in his efforts to prevent hostile Federal Child Labor legislation, and also to keep down unionism among our operatives. We also feel that the present spirit of friendliness between operatives and management is to quite an extent

due to his efforts along the above lines.

I wish to congratulate the Southern Textile Bulletin on the fifteenth anniversary, and wish for the editor and the publication great success in the future.

Yours truly,

ALEX LONG,  
Pres. and Treas. Aragon-Baldwin  
Cotton Mills, Rock Hill, S. C.

Your personal efforts, augmented by the able editorials in the Southern Textile Bulletin, has lifted the cotton mills of these United States to a higher plane. Every slander and misstatement has been exposed thus placing the cotton mill industry under abiding obligations.

Yours very truly,

J. T. GARDNER,  
Pres. Anniston Yarn Mills, Anniston,  
Ala.

May I felicitate you upon your Fifteenth Anniversary and splendid achievements, and wish you still greater success so that we may congratulate you again before your good publication is out of its teens.

Very truly yours,

E. CHAPPELL,  
Sou. Repr. H. & B. American Machine Co.

We wish to congratulate you on your fifteenth anniversary, which we understand will be on March 4th.

We have been reading this Bulletin for a great many years, and would feel lost if it did not come to our office each week.

David Clark has certainly been a friend of the textile industry in the South, both to the owners and operatives as well, and we are glad to tell him of our appreciation. While the mill managers have been trying to keep their plants operating on a profitable basis, Mr. Clark has been carrying on the fight for better labor laws, and better conditions in general for the textile industry, lifting this burden from the shoulders of the managers, which I am sure is greatly appreciated by all.

Yours very truly,

W. A. ENLOW,  
Vice-Pres. and Treas. Lafayette  
Cotton Mills, Lafayette, Ga.

I understand that on March 4th you will issue the Fifteenth Anniversary Number of the Southern Textile Bulletin and it seems that this would be a good time for an expression of approval and appreciation from those of us engaged in cotton manufacturing who have been the direct beneficiaries of the worthy work done by the Bulletin.

This not only includes the manufacturers, but everybody connected with the industry from the higher officials to the most lowly occupation in our mills. The broad scope of the Bulletin its treatment of manufacturing problems, together with the humane consideration of everything pertaining to the welfare of the operatives of the industry, gives it a place unique in the history of textile publications.

In this connection we must look for the "man behind the gun" and we find him in the very able per-



son of your editor, David Clark. The thanks of the whole industry should be most unstintingly given, as he has devoted his time and ability to a very worthy and successful effort and if there were any way we could make our friend Clark president emeritus of the cotton industry, he is the man to wear the mantle.

I most sincerely wish the Bulletin and Mr. Clark many, many years of continued prosperity and success.

Cordially yours,

L. W. CUDDY,

Mgr. Gambrell-Melville Mills, Bessemer City, N. C.

This is intended as a token of our very high regard for the work accomplished by David Clark and the Southern Textile Bulletin.

We believe that you have accomplished inestimable good for the Southern mills as a whole. Your ideas and methods have been sound and we always find you lined up on the right side of every subject.

We sincerely appreciate you and wish for you continued success.

Yours very truly,

GEO. S. HARRIS,

Pres. Exposition Cotton Mills, Atlanta, Ga.

Pres. Cotton Manufacturers' Ass'n. of Ga.

This being the Fifteenth Anniversary of the Textile Bulletin, I feel impressed to write a few words of appreciation of this paper. I have been an interested reader of the Bulletin since its beginning, and eagerly look forward to its coming each week.

The cotton mill industry, as a whole, should support this paper, as it has always proven to be in sympathy with everything that is clean and upright for the upbuilding of the industry to both employer and employee. I think the entire South is indebted to its far-seeing editor today for the Federal Child Labor Law having been defeated, and should express appreciation of his efforts in its behalf. Why would David Clark manifest such interest had he not been a friend to the cotton mill industry?

The Bulletin stands ready at any and all times to defend the South against any erroneous reports that frequently drift into other magazines and papers.

I must not fail to say a good word for the Discussion Page, which carries valuable information and is an untold benefit to superintendents and overseers. Would recommend to any young superintendent or overseer to read the Discussion Page weekly.

The editorials are always looked forward to when any question in the textile industry is at issue.

During these fifteen years, as a reader of the Bulletin I have never had cause to doubt anything published therein. Am wishing for the Bulletin, its editorial staff and its many readers many more years of mutual satisfaction.

Yours very truly,

W. P. LEISTER,

Supt. Walhallat Plant, Victor-Monaghan Co., Walhalla, S. C.

We wish at this time to express our appreciation of the service which David Clark has rendered the textile industry, which has been invaluable. He has done more to promote a spirit of co-operation between the mill operatives and managers than any other one man we know. Through his paper, the Southern Textile Bulletin, he has always maintained a very high standard, so that he has the implicit confidence of both the managers and operatives.

We wish to congratulate him for what he has accomplished during the past fifteen years, and trust that the future will bring even more credit to him than what the past has brought.

Very truly,

A. S. THOMAS,

Treas. Whitney Mfg. Co., Whitney, S. C.

We are pleased to express our appreciation of your very fine paper and of the splendid service you have rendered to all cotton manufacturers of the South.

Yours is a wide-awake, progressive paper and we are very pleased to say has a large following with all of our employees, which is to say "has earned its place."

We wish you continued success in your very important undertaking.

Yours very truly,

W. H. BEATTIE,

Vice-Pres. and Treas. Wallace Mfg. Co., Inc., Jonesville, S. C.

It is with great pleasure that we accept the privilege and opportunity of expressing to Mr. Clark and to the Bulletin the appreciation that we have always had for them on account of their untiring efforts to help the cause of the Southern manufacturer, and in trying to let the world know that the child labor of the Southern mills was not as pictured by some of the so-called welfare workers.

In our opinion not only the Southern cotton mills but the whole country is under obligation to you, Mr. Clark, for the work that you and the Bulletin did to defeat the Twentieth Amendment to the Constitution of the United States.

I have been a subscriber to the Bulletin since 1912 and hope to continue my subscription for many years.

C. R. BRUMBY,

Supt. Cedartown Cotton and Export Co., Cedartown, Ga.

It gives me pleasure to congratulate you on your fifteenth anniversary, which you celebrate on March 4th.

Now in a few days it will be just twenty years since I had the pleasure of meeting your editor, and during the years that have passed I have realized more and more my good fortune in being able to call "Dave" Clark my friend.

Pardon me for this personal touch, but nothing that could be said about the Textile Bulletin would be complete without a word of commendation for its managing editor, who has followed the same policy in the management of his paper as he has in his personal life,

that of unselfish devotion to any cause which he champions.

Gentlemen, your paper has done an unlimited amount of good in its fight against the evils that have beset the cotton manufacturers of the South, and the Southern manufacturers appreciate it and are everywhere outspoken in their expressions of gratitude.

It is undoubtedly the fervent hope of all who know your paper that it may continue to grow in power and influence during the years that are ahead.

Yours truly,

L. R. GILBERT,

Supt. Caraleigh Mills Co., Raleigh, N. C.

It gives me much pleasure to congratulate you on the fifteenth anniversary of your valuable paper, to which I have been a subscriber since your first issue and read regularly with pleasure and profit. We also wish to express our thanks and appreciation for your effective work in behalf of the manufacturers and mill operatives during the past fifteen years.

With best wishes for your continued success.

Yours truly,

J. C. SMITH,

Treas. Shelby Cotton Mills, Shelby, N. C.

We want to extend hearty congratulations on your having reached your fifteenth anniversary, and because you have accomplished so much good for the textile industry of the South since your birthday.

We think David Clark has placed us all under heavy obligations to him for the successful fights he has made in our behalf, especially in reference to Federal Child Labor Laws, and Northern labor leaders who have tried to unionize the mills of the South. May he live long, and keep up the good fight for us.

With best wishes for your continued prosperity and usefulness.

Yours very truly,

CHAS. M. WALKER,

Pres. Monroe Cotton Mills, Monroe, La.

Noting the announcement of the approach of your fifteenth birthday, I want to take this occasion to congratulate you upon the success you have obtained and the valued position that you now occupy in this section.

Personally, I am indebted to you for many helpful suggestions both in the administrative and practical aspects of my work. And it is my sincere hope that the years to come will bring to you continued success, without the strain and worry and hardships of the past.

Most sincerely,

L. B. GIBSON,

Supt. Fairmont Mfg. Co., Fairmont, S. C.

It is a great pleasure for me to have an opportunity to put a few lines in one of the best textile papers, I think, in the South.

I want to thank David Clark, as all we "old fellows" call him, for the stand he has taken in behalf of the cotton mill industries, and for the strong editorials that he has

broadcast expressing his views against issues that, had they been passed, would have caused mountains of trouble for both the manufacturer and labor.

I was one among many that received one of the first issues of this great paper, and I have not missed an issue since.

Yours very truly,

W. F. DOGGETT,

Supt. Cowpens Mills, Cowpens, S. C.

Permit me to greet you with the right hand of good fellowship on the fifteenth anniversary of your valuable publication, of which it has been my pleasure to be a subscriber beginning with the first issue.

I have become so attached to the Southern Textile Bulletin that I almost feel it to be a cog in the machinery of our business. You have rendered a great service to the upbuilding of the textile industry in the South and we are not unmindful of the great good that you have accomplished.

I have known David Clark for many years; and time has served only to increase my admiration for his splendid attributes, and the fine service he has rendered the cotton manufacturers of the South.

He has stood as a bulwark against the encroachment upon our constitutional rights. He fought a long and courageous battle for our interests and we rejoice in his victory.

We commend you to the grace of fortune for a long and useful life.

Sincerely yours,

BLAIR W. BINGHAM,

Gen. Mgr. Tellico Cotton Mill Co., Tellico Plains, Tenn.

Please accept my congratulations on the fifteenth anniversary of your publication. May your health be such you are permitted for many years to continue successfully the publication which has so wonderfully, through its editorials, helped to build up not only the manufacturing industry of the South but the morale of the men engaged in its promotion. Aside from the technical value I have received for the past fifteen years from the Bulletin, I have read and watched your timely editorials, which have helped to tide the industry over many critical periods.

The Southern manufacturers are indebted to you for the ever untiring effort put forth in their behalf in many matters which would have materially crippled the cotton manufacturing industry had you not fought honestly and fearfully to a successful conclusion in its behalf.

Believe me sincerely yours,

J. V. McCOMBS,

Supt. Fountain Cotton Mills, Inc., Tarboro, N. C.

Having been connected with the textile mills for the past twenty-five years, it is my candid opinion that David Clark has, through his publication, the Southern Textile Bulletin, done more for the Southern textile industry than any one we know of.

Yours very truly,

G. C. DILLING,

Supt. The Brazos Valley Cotton Mills, West, Tex.





*Inspecting Wissco Card Clothing at the Factory*

## Exacting Inspection Insures Wissco Wire Card Clothing Quality

**F**ROM the time the Wickwire Spencer Steel Company mines the ore, until the wire is made into card clothing, Wissco Wire must pass exacting tests and inspections.

The wire must pass exacting tests for tensile strength and hardness. Accurate analytical and fatigue tests are applied. The most precise setting and grinding machinery is used in the manufacture of Wissco Clothing. The finished clothing is examined minutely for possible imper-

fections. Teeth must be evenly set; the angle and pitch must be uniform; and the points properly ground.

Not until it satisfactorily fulfills all these demands is it allowed to leave the Wickwire Spencer Steel Company's factories.

These are some of the reasons why you obtain a 35 per cent longer interval between grindings, and a free cutting wire that will grind without hooking in the time now required to grind ordinary card wire.

WICKWIRE SPENCER STEEL COMPANY  
41 East Forty-second Street, New York



# WICKWIRE SPENCER PRODUCTS



## 10 QUESTIONS ANSWERED

### WITH REFERENCE TO



**1 WHAT IS CARECO ONE PIECE FURNACE LINING?**

It is a Plastic Furnace Lining, used on the inside of the furnace in place of fire brick.

**2 IN WHAT TYPE FURNACE MAY IT BE USED?**

Because of its nature it may be used in practically every type furnace in existence—anywhere fire brick has been, or can be, used.

**3 WHAT ARE ITS PROPERTIES AND APPEARANCE WHEN INSTALLED IN THE FURNACE?**

Careco One Piece Furnace Lining is scientifically prepared of high heat resisting material, and forms ONE SOLID PIECE when it hardens in the furnace.

**4 WHAT MUST FURNACE LINING STAND?**

Furnace Lining must stand temperatures ranging between 2,600 and 3,000 degrees F.; must stand friction and wearing away of lining by hot gases and flame action, fuel and ash, and attack of fireman's slice bar.

**5 WILL CARECO ONE PIECE FURNACE LINING DO THIS?**

Yes. Careco One Piece Furnace Lining will stand 3,100 degrees F., and not only successfully resists abrasive action of furnace charge, mechanical equipment and swift moving, dust-laden gases, but lessens disintegration; strengthens the whole structure of the furnace and gives better control to furnace atmosphere.

**6 WHAT IS THE LIFE OF CARECO ONE PIECE FURNACE LINING COMPARED WITH THAT OF FIRE BRICK?**

The life of Careco One Piece Furnace Lining is from two to three times longer than fire brick, under the same working conditions.

**7 WHAT ARE THE DISADVANTAGES OF FIRE BRICK?**

The frequent changes of furnace temperature and

the uneven pressure caused by contraction and expansion of brick, weakens the bonding cement that holds brick in place, and causes it to crumble. This leaves weak joints and allows brick to become loose, crack or fall out—leaving holes through which cold air enters. When that happens the whole brick lining is in a weakened condition and may suddenly require repairs or a complete new lining.

**8 WHAT ARE THE ADVANTAGES OF CARECO ONE PIECE FURNACE LINING?**

With Careco One Piece Furnace Lining the density is uniform; there are no joints to open up; no fire clay to melt; no voids to allow cold air into the furnace and no brick to work loose and fall from the wall—it is ONE SOLID PIECE when installed. Furthermore, only common labor is required to install it, thereby eliminating the expensive brick-mason, and time for installation is about one-half that of fire brick. Careco One Piece Furnace Lining eliminates frequent furnace repairs, and is one means of reducing production costs.

**9 HOW DOES PRICE OF CARECO ONE PIECE FURNACE LINING COMPARE WITH THAT OF FIRE BRICK?**

Cost of Careco One Piece Furnace Lining is in line with that of fire brick, and INCLUDES services of engineer to supervise installation.

**10 DO YOU MANUFACTURE ANY OTHER FORM OF LINING?**

No. We manufacture only one lining—Careco One Piece Furnace Lining—using the most refractory materials obtainable. In this age of specializing, we are specialists in the Furnace Lining field, putting the best in our product, and offer the services of our staff of engineers if we can be of assistance in helping solve Boiler Furnace problems.

It is logical to suppose that a group of men who constantly study one subject only, will be more proficient than others who work in conjunction with many other lines.

We specialize in Lining Industrial Boiler Furnaces. Our engineers are constantly installing Lining in all types of furnaces. Engineer is furnished without charge to supervise installations, and we assume all responsibility.

A consultation with us about your furnace will result in your boiler room being a more efficient unit of your plant.

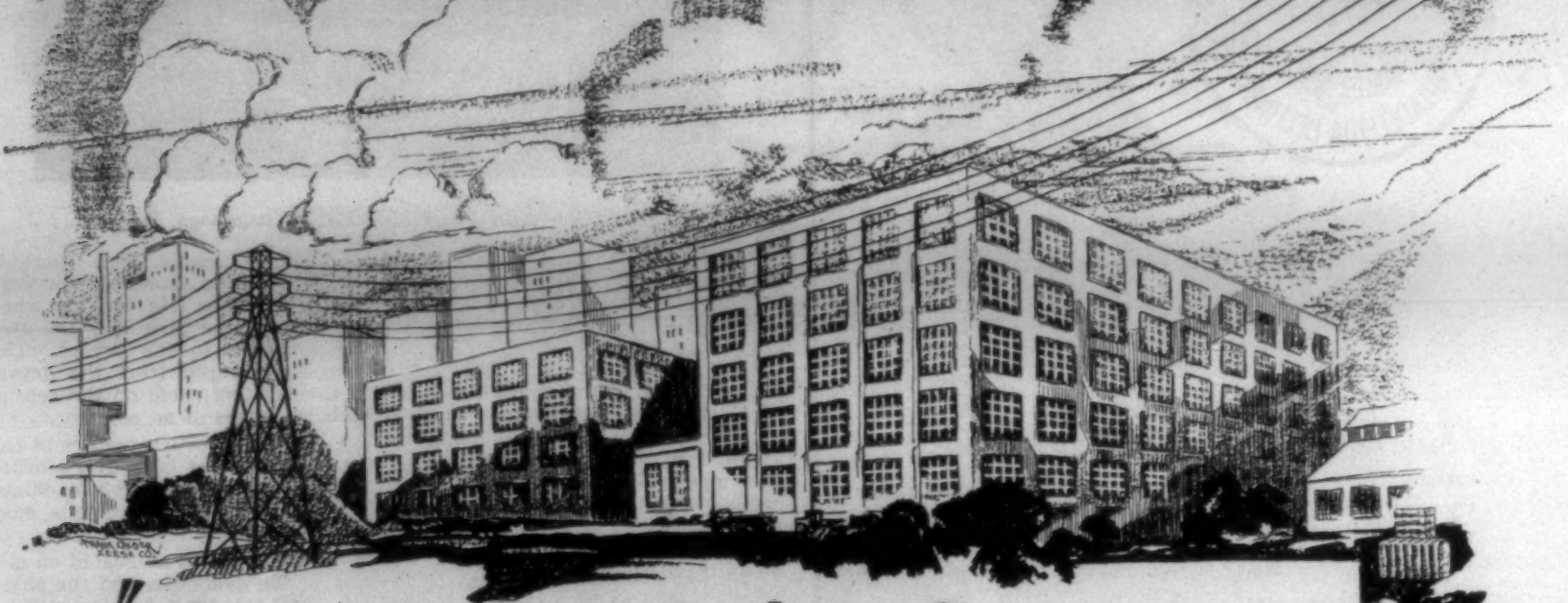
*Estimates of cost gladly furnished.*

## CAROLINA REFRACTORIES CO.

HARTSVILLE, S. CAROLINA



# TEXAS



*"the most logical place for*  
**COTTON MILLS** *"*

TEXAS, the land of cotton, sunshine and flowers, 5,000,000 population and the state which is today showing the steadiest conservative growth, has great advantages as a textile center.

Operating costs in Texas are low because of the high class of willing and fair-minded natives available as mill workers, a moderate climate, favorable public opinion toward capital, which is reflected in the state laws; several great port cities offering outlets to world markets, good railroad facilities, and, last but not least, an electric power transmission system operated by the Texas Power and Light Company serving more than 150 cities in the heart of the nerve center of the industrial section of Texas.

Although power is a more or less small item in the total cost of manufacturing, the availability and reliability of the source of power is a vital factor to the manufacturer. Large steam generating stations supply energy to the transmission system of the Texas Power and Light Company. Therefore the power supply for customers of this company is not dependent upon the unreliable and sometimes failing elements of nature, which, due to extended drouths in some sections of the United States, have caused shutdowns in large factories and the resulting curtailment of production. No manufacturer using power from this Texas transmission system has ever been forced to shut down because of a shortage of electrical energy.

Come to Texas where the people are willing to co-operate in the building of mills, where the public looks favorably upon outside capital and where the sun shines and the flowers bloom practically every day of the year.

**PROVIDING FOR THE TEXAS OF TODAY AND  
 PLANNING FOR THE TEXAS OF TOMORROW**

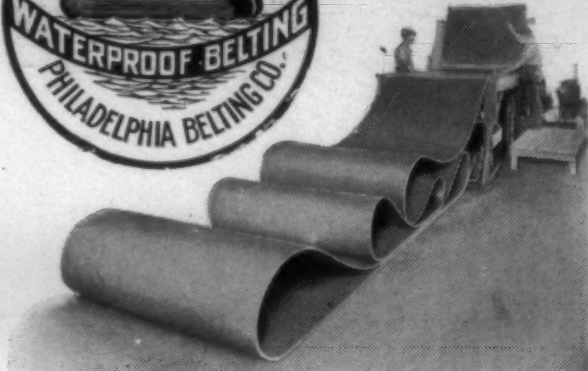


## Texas Power & Light Co.

*General Offices, Interurban Bldg.*  
**Dallas, Texas**







"MR. COTTON MANUFACTURER," you are making every effort, watching every machine, to try and bring your plant up to full production with the lowest possible cost.

Have you taken up the real connecting link, your belt transmission.

Transmission belting is one of the most necessary of plant essentials. With it *right*, the machinery is producing to capacity; with it *wrong*, there is a puzzling leak in production, and with its *failure* both capacity and production suffer; therefore, is there anything in plant capacity and operation that ranks higher in importance?

Let us tell you why "Ark" belting will help you meet this important need in your plant. Fill in the slip below and mail it today.

**Philadelphia Belting Company**  
MANUFACTURERS OF RUBBER BELTING

High Point, N. C.

Edwin J. Payne, Branch Mgr.

Main Office and Factory  
Sixth & Spring Garden Sts.,  
Philadelphia, Pa.

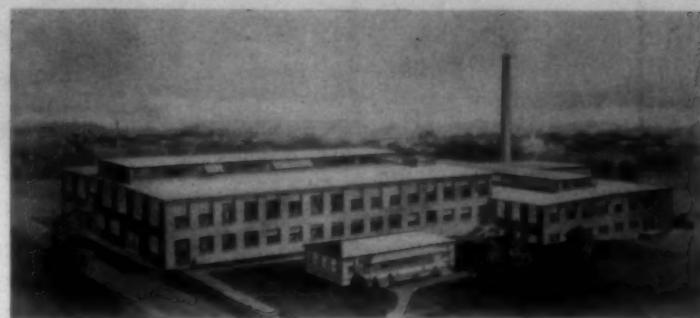
New York—50 Church St.	Pittsburg—217 Water St.
Chicago—614 West Lake St.	High Point, North Carolina.
Detroit—429 Wayne St.	Portland, Oregon — 41 First St.

Philadelphia Belting Co.,  
High Point, N. C.

Please send me general specification of Ark belting.

<input type="checkbox"/> For Spinning	<input type="checkbox"/> Dye House
<input type="checkbox"/> Looms	<input type="checkbox"/> General Use

## New Franklin Process Dyeing Plant



Central Franklin Processing Co., Chattanooga, Tenn.

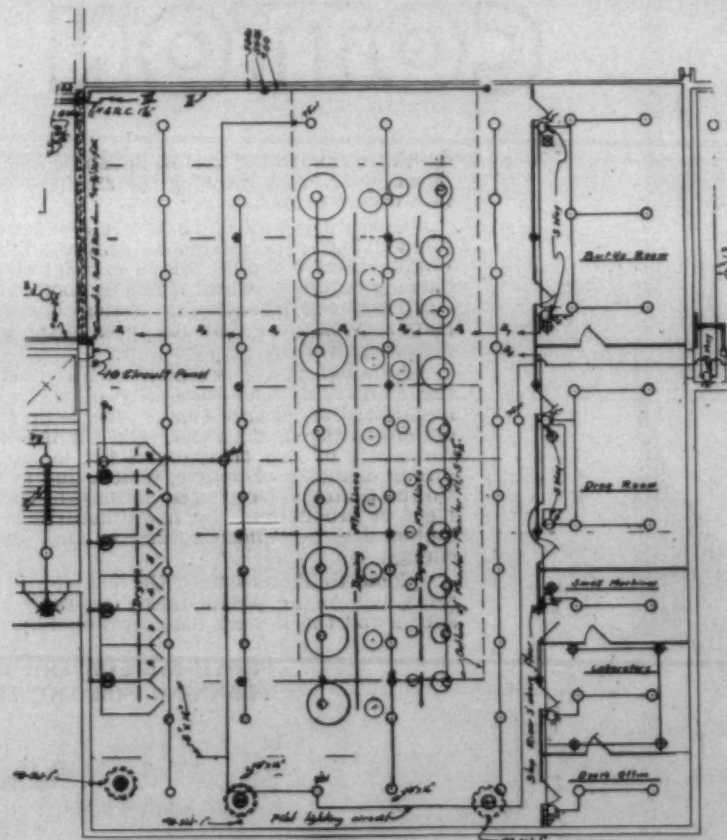
A NOTABLE new development in the textile industry is the Central Franklin Process Company, of Chattanooga, Tenn. This company is another offspring of the Franklin Process Company, of Providence, R. I., and makes the fourth yarn dyeing plant that this organization has in the United States (the Franklin Process Company also owns a spinning mill in Fingerville, S. C.) The present capacity of the Chattanooga plant is 30,000 pounds per week, which brings the total yarn dyeing capacity of the Franklin Process organization up to the interesting figure of approximately 300,000 pounds per week.

The plant is a two-story structure

2). This arrangement permits greater ease in handling the yarn and necessitates less walking when transferring the yarn from the dyeing machines to the dryers. The yarn is conveyed from the dryers to the winding room on the second floor by means of an elevator.

Another interesting feature of the plant is that the boss dyer's office and laboratory and sample machines are adjoining, which permits easy supervision.

The boiler room is located on one side of the dyehouse, and the shipping and receiving departments on the other. The winding room is located on the second floor while the two H. P. boilers and electrical



Floor Plan, Central Franklin Processing Company.

designed by J. E. Sirrine & Co., Greenville, S. C. The dyehouse is unique in that it occupies less floor space in proportion to output than any of the other Franklin Process plants and probably less than any other dyehouse, for that matter; also, in that the dyeing apparatus is located in a pit in the middle of the dyehouse (see illustration No.

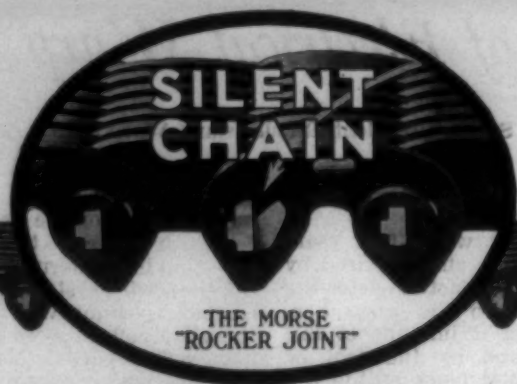
power is used to operate the machinery.

The building at present occupies a space of approximately 290 feet by 100 feet, but the construction on both ends of the plant is of a temporary office is in a separate building in front of the plant.

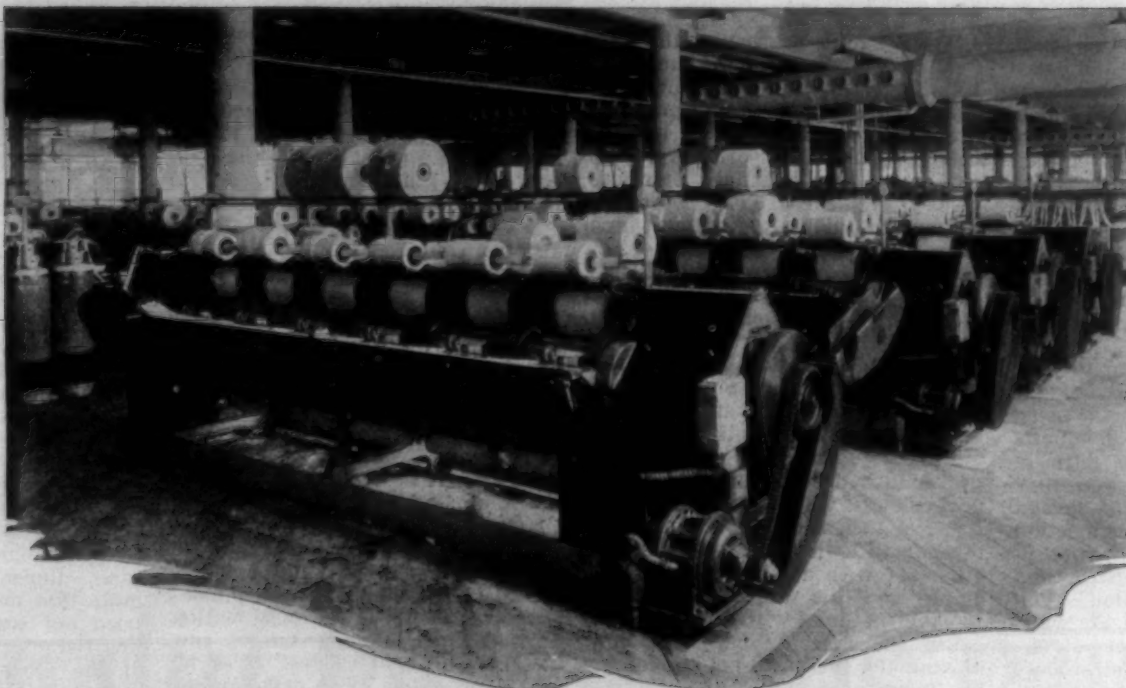
Steam for dyeing is supplied by  
(Continued on Page 82)



# MORSE



# DRIVES



*Card Room of the American Thread Company, Dalton, Ga., where Morse Silent Chain Drives are used for all group drives and for individual comber drives.*

## Transmitting Power with 98.6% Efficiency at the American Thread Co.'s New Plant!

Morse Silent Chains are used for all group drives in this new plant of the American Thread Company, for only the highest quality equipment throughout the plant was selected. Throughout the textile industry Morse Silent Chain Drives are recognized as vitally important to any mill striving to attain and maintain leadership in volume of production and quality of product.

Morse Silent Chain drives transmit 98.6% of the power developed by the motor. They cannot slip, nor do they involve any of the delays due to stitching, lacing, tightening, breakdowns or failures in service experienced with other forms of drives. Nor does fly and dirt from pulleys and belts injure the quality of the product. Moreover, being flexi-

ble as a belt, they absorb the shocks and jars of starting and stopping, protecting motor armatures and lessening journal friction.

The Morse Rocker Joint substitutes rolling motion for sliding motion of the joint, which reduces wear and insures extremely long life of the drive without repairs and breakdowns.

Applicable to long or short centers, one quarter to 5,000 H.P., and speeds from 6,000 to 250 R.P.M. or less.

Every textile mill can use Morse Chain Drives to advantage. The Morse Engineer nearest to you understands your power transmission problem. He is at your service.

*Write for booklet "A Chain of Evidence from Textile Mills" or consult Morse engineer at nearest office.*

### MORSE CHAIN CO., ITHACA, N. Y., U. S. A.

Boston, Mass., 141 Milk St.  
Jno. S. White, Mgr.

Charlotte, N. C.  
Geo. W. Pritchett, Mgr.





## Development of Electrical Warp Stop Motion

By Edwin C. Smith, President, Rhode Island Warp Stop Equipment Co.

**T**HE K-A Electrical Warp Stop actively entered the Southern field in 1921. It came as a thoroughly proved device which had been adopted by representative mills for use in weaving cotton, worsted and silk fabrics. One of the first mills in North Carolina to adopt the K-A electrical warp stop sent out over one hundred questionnaires to users of K-A concerning its merits and demerits. When the vote was counted and declared it was found practically unanimous as to the merits of the K-A and the latter was adopted by this mill. Since then, between 15,000 and 20,000 K-A electrical warp stop motions have been sold in the South alone. Such consistency of favorable expression from mills so diversified and widely separated was surprising as it was gratifying. An interesting incident of the investigation was this information from one of the largest silks mills in Pennsylvania: "We are returning to you the questionnaire on K-A electrical warp stop motions which we believe you will find filled out to your satisfaction. You will note under the last heading that we are using the stop motions on artificial silk which is a very delicate fibre to handle in the loom, as you may know." A reason for the special efficacy of the K-A in connection with artificial silk (rayon) lies in its utter simplicity of construction, arrangement and operation. The drop wires hang freely on the warp threads subject to no stress of encountering mechanism, and subject to no close confinement to control the action of the drop wire under such encounter.

Simplicity has been the keynote of K-A creation and development. One of its original sponsors remarked, in substance: "Every warp stop motion must have drop wires; and guide rods or guide bars to maintain the drop wires in position; and something to be encountered by a drop wire when its warp thread breaks, to cause stopping of the loom through a reaction upon its handle mechanism. Other warp stops (of that period) rely for such reaction, whether it be mechanical or electrical, on encounter with something outside of the drop wires. This something needlessly occupies space in the loom, and further affords opportunity for lint accumulation, to the detriment of warp stop action. With the K-A electrical warp stop motion, however, the guide bar for the drop wire is made the contact bar or detector, supplanting in function the "something outside of the drop wires" and eliminating it, thus reducing the combination to only two elements—the drop wire and its guide bar. A simpler combination cannot be conceived." This succinct statement defines the K-A drop wire system which carries perforce of its simplicity and electrical character other essential advantages. From the first these have characterized the K-A electrical warp stop, commending it to the discriminating and establishing a standard of per-

formance for other makers of warp stop equipment.

For practically twenty-four years the K-A has been characterized by the fact of its contact or detecting point being above the warp line, thereby making it immune to lint interference; and by the fact of that contact point being within the drop wires and therefore not subject to the air laden fly.

Twenty-four years ago the makers of K-A provided for the ready multiplication of the rows or "banks" in which the drop wires are arranged. In those early days the preponderance of warp stop equipment was 2-bank. Extremes of sley like "collar cloth" were unknown; and many fabrics for which drop wires are now deemed desirable were then considered outside the range of practical warp stop treatment. Provision for 4-bank equipment was really ahead of the times, but even then we had the necessary patterns and parts. Now, cotton goods call for as high a 6-bank equipment and silk as high as 8-bar equipment. But although no provision had been made for these, nevertheless when the time came for trying them out, it was entirely feasible with the K-A to combine a 4-bar set with a 2-bar set, for example, and this was actually done. It could be done with the K-A because the detector bars are non moving and therefore not connected by mechanism with the motive parts of the loom. All that was necessary was to provide support for whatever number of detector bars (electrodes) were required, and electrical connection with the electromagnetic knock-off. When mills found it necessary to change from 2-bank to 3-bank or 4-bank or whatever, those which had K-A electrical warp stop equipment found the change easily made, at low cost and without interruption or confusion. It was merely necessary to unfasten and remove the 2-bar electrode holders and replace them with whatever they required, an operation taking only a few minutes for its performance. Mills with 2-bank mechanical equipment found it necessary to either rebuild it or to replace it, an operation that did interfere with operation of the loom.

The fact that the K-A electrodes, or contact or detector bars, are non moving and operatively connected with the electro magnetic knock-off by a flexible conductor has further advantages. The drop wire system can be varied as to its position, and such change requires no change of operative adjustment—simply unfasten a couple of set screws, change the position and refasten the set screws. Weavers of staple goods which run indefinitely without change of pattern may not appreciate this advantage, but weavers of fancy goods, subject to changes of weave involving change in number of harness will appreciate it. Ex-

perience has shown that there is a best position for the drop wire system with reference to the whip roll and the back harness. Therefore the drop wire system should have a different position with reference to the whip roll on a weave requiring twenty-four harness than would be the case where only 6 harness are used. Where, as is the case in some mills, such changes are frequent, facility of performance and freedom from operative adjustments means much.

The fact that there is no continuously moving mechanism to the K-A means a great deal to the fixer and to the mill. It seems inescapable that no matter how well designed and produced, any device that is subject to 30,000 to 50,000 reciprocations or oscillations per day will develop more wear and deterioration of functional efficiency than a device which does not require such agitated mechanism. Users of K-A include mills where thorough experience has been had with different kinds of warp stop equipment. From such mills we have the expressed conviction that the warp stop which is not dependent upon such agitation of its construction shows in the long run better sustained certainty and reliability of action. The K-A electrical warp stop is the only motion of that kind. Comparison of new motions for a short test gives no real information. Two new motions of different types if properly put together and adjusted should show little if any difference in effective action under the usual conditions. At the end of a year the results will probably be quite different, for accumulated wear will show its effects. As an example, a large worsted mill, after using electrical warp stops, was finally persuaded that they had found a mechanical device with all the merits of the electrical, but requiring no generator or wiring. So the new motion was installed. At the end of two years we were sent for to replace them with K-A electricals, because the accumulated wear even in circumstances where they had exceptional attention at the hands of an exceptional organization had seriously impaired their effectiveness.

Because the K-A electrical warp stop is fundamentally so simple we cannot point to great improvements of an inventional nature during the past fifteen years. Like two well known makers of automobiles, we have to say that while our K-A is constantly improved it has no periodic models. Improvements in the matter of application to the loom are watchfully studied. Adaptation to new needs commands constant thought. Our contribution to the industry has really been that of educating the weaving trade to the advantages of a perfected electrical warp stop motion. It seems not amiss to point out some of the

problems encountered because they concern more than our own intimate activity, having application to every person who must sell to the textile or any other industry. Somehow it seems that some mills go far to defeat their best interests. This is true of no particular section—in fact it seems less prevalent among Southern mills than elsewhere. The open mindedness evinced by sending out questionnaires above alluded to, to actual users of a debated device, is unusual, but two Southern mills have done this. Occasionally, however, a mill is found where a final decision hangs on the expression of thought or belief of a third party, with no effort to verify the basis for that expression. Such expressions sometimes arise from pure conjecture and sometimes from misinformation. In the course of negotiating a substantial order in this district our representative was brought into contact with a man who held pronounced beliefs adverse to electrical warp stops. He is a man whose opinion carries weight. That opinion was, however, not sufficient for our customer. He showed the expert a loom equipped with our K-A and asked him to substantiate what he had said by specific reference to that loom but the expert could not satisfy them from anything he could point out, as to the correctness of his strictures. Repeatedly have we heard of mills that according to report had tried our warp stop and found it unsatisfactory, when investigation of the facts developed that these mills had not used our motions. A most unique incident occurred with the writer of this article. On calling at a mill he was told that years ago the mill had tried out an extended equipment of our motions but found another which they preferred. Although the incident was utterly contrary to the writer's knowledge and belief, he was compelled to admit that his knowledge and belief were at fault for the man whom he interviewed described our K-A so unmistakably as to leave no apparent possibility of error on the part of the other fellow. The latter having apparently proved his contention thought of still one further fact to clinch it and that last statement annulled all he had said before—he was compelled to admit that he was in error and that it was another motion which they had tried. The incident is somewhat of a tribute to publicity, for it seemed that his ability to so closely describe our K-A arose from a campaign conducted by our predecessors years ago in which they sent out a multitude of envelopes with sample of drop wires and small sections of electrodes.

Perhaps the fact that conveys as much as any to the mill man is this—that the demand for K-A is exceeding our expectations. Our entry into the Southern field has been mutually advantageous. The prospects are that we are going to do more there than heretofore.



Where interiors are painted with this—



## Washing removes the dirt but not the paint—

**T**RY to wash ordinary white paint. Does the dirt come off? Does the paint stay on?

*You can wash Barreled Sunlight clean any number of times without the least injury to its lustrous white surface.*

This is because Barreled Sunlight is so satin-smooth that dirt can find no foothold—and so durable that repeated washings will not wear it away.

Made by the exclusive Rice Process, Barreled Sunlight is guaranteed

to remain white longer than any gloss paint or enamel, domestic or foreign, applied under the same conditions—also, not to flake or scale if properly applied. It is economical in application, too, flowing on freely with brush or spray at the *lowest cost per square foot of surface covered.*

These are the practical reasons why hundreds of modern textile mills prefer Barreled Sunlight to any other paint for their ceilings and walls.

Sold in 55- and 30-gallon churn-equipped steel drums and in cans

from  $\frac{1}{2}$  pint to 5 gallons. Where more than one coat is required, use Barreled Sunlight Undercoat first.

For exteriors, use Rice's Reinforced Paint, a scientifically machine-made paint in pure white and unusually well-defined colors. Used by textile mills everywhere.

The coupon will bring you an illustrated booklet and a panel painted with Barreled Sunlight.

U. S. GUTTA PERCHA PAINT CO.  
Factory and Main Offices

36 Dudley Street, Providence, R. I.  
New York—350 Madison Ave. Chicago—659 Washington Blvd.  
San Francisco—156 Eddy Street  
Distributors in all principal cities

# Barreled Sunlight

Reg. U. S. Pat. Off.

Save the surface and  
you save all

U. S. GUTTA PERCHA PAINT CO.,  
36 Dudley Street, Providence, R. I.

Please send us your booklet "More Light", and a panel painted with Barreled Sunlight.

Name .....

Street .....

City ..... State .....



Better Lubrication at Less Cost per month

## MILL MEN!

We Report Another Year of  
Satisfactory Operation  
from mills everywhere using



MODERN TEXTILE LUBRICANT

*That Stays in the Bearing  
Because it is made that way*

NON-FLUID OIL helps insure the maximum output from your equipment by keeping every bearing positively and continuously lubricated—minimizing delay from repairs and replacements of worn bearings.

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## U. S. Ring Travelers

By the U. S. Ring Traveler Company.

THE travels of a piece of wire to finally become fashioned in to a ring traveler in the plant of the U. S. Ring Traveler Company, 159 Aborn street, Providence, is one of the most fascinating trips one can imagine. This wire passing through specially constructed automatic machines takes hundreds of twists and turns, is subjected to the most scientific treatment for temper and hardening and finally comes out to the inspectors to be put up in one pound boxes with about 15,000 travelers to the pound as a general average size. But weight and numbers are fixed by the character of the work to be allotted the travelers and the fine counts run as low as ten to a half grain weight, and as high as one weighing 1,500 grains.

The U. S. Ring Traveler Company was incorporated in 1909 by Amos M. Bowen and his associates. It started in a small way in one room with special machinery made under Mr. Bowen's direction and immediately stepped into prominence and favor with the men in the mills, as by new and improved methods it made travelers of the highest standards of quality and before long it was necessary to seek larger quarters and more special machinery. During the past seventeen years the U. S. Ring Traveler Company has forged ahead, incorporating many new ideas in the production of ring travelers, and at the present time it owns and occupies its own factory at 159 Aborn street, a large building in the business center of Providence, and is putting out a record number of travelers with increasing interest on the part of its regular customers and a most satisfactory inquiry from both North and South.

With accurate knowledge of requirements in raw material and skilled knowledge in how to process this material to give the best results, Mr. Bowen has developed a line of ring travelers that are in high favor wherever used and for which there is a steadily increasing demand from all parts of the country.

The ring traveler is the smallest piece of equipment used in our cotton mills and it is absolutely necessary on all ring spinning frames. On the selection and processing of the wires from which they are made, depends the weaving quality and accurate operation of the ring travelers and U. S. travelers (Universal Standard) is appropriate for the product of the U. S. Ring Traveler Company of Providence. At best the life of a ring traveler is short, but during that period they must hold up to every test, which means as near perfection as human beings can attain, and this perfection in construction and operation is the watchword of the U. S. Ring Traveler organization and their solid growth is evidence that there is little lacking in their product.

The tempering of the ring traveler is the secret of the final quality of the product. This is done along

latest scientific lines and Amos M. Bowen is recognized as one of the most successful specialists in this particular, as well as in the general production of ring travelers.

Amos M. Bowen, the treasurer and directing head of the U. S. Ring Traveler Company, is responsible for the first 5 and 9-16 circle traveler ever used in this country, also the bronze twister traveler fitting rings 2 inches in depth and 7½ inches in diameter. Both innovations are now in general use.

The growth of the U. S. Ring Traveler Company since its incorporation in 1909 has been among the most marked in the textile industry. In 1911 the plant was moved to its present home (159 Aborn street, Providence, where half of the second floor was all that was required. Two years later the entire second floor was hired and shortly after another floor was added and filled with special machinery, ovens, etc., making one of the most complete ring traveler manufacturing plants in the world. As stated above, the company now owns the entire building and is in a position to expand as fast as demands for its well known product "U. S. Ring Travelers" makes it necessary.

In 1911 Antonio Spencer, at the present time the youngest old man in the textile industry, joined the U. S. Ring Traveler organization and in 1923 was chosen the president. Mr. Spencer has looked after the sales end to a large extent and backed by a 100 per cent product, he has sold millions of ring travelers from Maine to Texas and is still going strong. Mr. Spencer "Tone," as he is fondly known to an army of mill men, went through the mill devoting special study to spinning. His practical knowledge of the mill, coupled with Mr. Bowen's ability as a traveler expert, makes a most unusual executive combination and is largely responsible for the success of the U. S. Ring Traveler Company.

Amos M. Bowen, the directing head of the U. S. Ring Traveler Company, has spent his entire working life in the ring traveler business. He started in when he finished high school and has never been actively engaged in any other occupation. He is recognized as a specialist and is daily solving many important spinning problems. For thirty-four years he has been identified with the manufacture of ring travelers, a small but mighty part of our great textile industry. He has designed and had made under his personal direction all the equipment for what is recognized as standard ring travelers of as high quality as can be made, and as yet has never failed to meet the requirements of his customers. He invites superintendents and overseers to bring or send him word of all their spinning troubles where the traveler is involved, and it will

(Continued on Page 82)



# ALLIS TEXROPE DRIVE

(PATENTS PENDING)



Part of an installation of 40 Texrope Drives and Allis-Chalmers Roller Bearing Motors  
in a North Carolina Mill

Perfection of the textile making process depends not only on the textile machinery itself but also on the method of driving it. The best quality of goods is manufactured by the machine that operates the smoothest and steadiest.

The Texrope Drive, free from backlash, jar or vibration, transmits the kind of motion that produces perfect goods. Its cleanliness and silence add to its attractiveness, and mechanical simplicity makes it an excellent proposition from the operating standpoint. No wonder it is called

## THE IDEAL TEXTILE DRIVE

*Write for Bulletin 1228-B*

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Toledo  
Wilkesbarre



### U. S. Ring Travelers

(Continued from Page 80)

he something very much out of the ordinary that he and his efficient organization cannot satisfactorily solve.

In the South the U. S. Ring Traveler is ably represented by William P. Vaughan, at Greenville, S. C., and Oliver B. Land, where stocks are always on hand for immediate shipment.

### New Franklin Process Yarn Dyeing Plant

(Continued from Page 76)

porary nature in case it proves advisable to add to the building later on. The plot on which the plant is located is about 10 acres in area.

This plant was constructed primarily to better serve the hosiery trade of Tennessee. The Southern Franklin Process Company of Greenville, S. C., has been supplying dyed mercerized yarn to this portion of the textile industry for a considerable time, but due to the increased demand for dyed yarn from other branches of the textile industry, the construction of the Chattanooga plant seemed desirable. This plant will also be in a position to supply dyed yarn to the territory west of Tennessee, including Chicago and other textile centers.

As is the case with all other Franklin Process dyeing plants, this plant is equipped exclusively with Franklin Process machines which

dye yarn in the convenient Franklin package form. After dyeing, the yarn can be shipped to customers in this form, or, if desired, it can be rewound to cones or paper tubes.

### Progress and Improvements in the Boiler Room

COINCIDENT with the birth of the Southern Textile Bulletin fifteen years ago, the industrial field gave birth to another industry, which previously, and even at that time, was generally regarded as of minor importance in the light of contributing to the progress that has been taking place during this period in the boiler rooms of industrial plants generally, including the textile interests. We say of minor importance because the average steam user, or power plant operator, as a rule regarded grate bars and grate equipment as merely "something to support fuel," as probably Noah did back in his time, many consumers of coal not realizing the important part assigned to grate equipment as a unit of their operation, or the design of grates used.

During this period, however, much light has been brought to bear on this very important unit of the power plant with result that the progressive or up-to-date steam power plant operator now uses improved methods and equipment under his boilers to speed up efficiency and conserve his fuel.

Among the concerns who have

contributed very materially to bring about improved conditions where hand fired methods are employed in the boiler room, is the Thomas Grate Bar Company, of Birmingham, Ala., who perfected and offered to the steam using trade some fifteen years ago their Elliptic type grate equipment, being a grate bar designed along scientific lines and practical in application, which when used with improved methods of firing insures a continuous steady operation, decreasing fuel consumption and increasing boiler efficiency. The material of which this equipment is made being a special semi-steel mixture insures a low cost of maintenance from long life.

Their "WSD" grate equipment will today be found under the boilers of textile plants not only throughout the South, but in many New England mills as well, in fact are in general use by Representative concerns from Texas to Maine and from Minnesota to Florida.

While it is true that most local foundries make as a side line some form or type of grate bars usually of poor design and inferior material, the Thomas Company specializes in this line and makes a study of the combustion problems confronting the various lines of steam users, maintaining an engineering department for this purpose to co-operate with them in ascertaining and furnishing the type of grate equipment best suited to their needs and fuels used to obtain maximum efficiency, thus rendering a valuable service for which no charge is

made. In fact, it might be stated that the success and favorable reputation they have built up universally with the steam using trade, both North and South, has been based on a service of merit and co-operation.

14,024 spinning spindles.  
C. R. Miller Manufacturing Co.  
Waco, Tex.

10,000 spinning spindles; 320 looms.  
H. S. Clark \_\_\_\_\_ Supt.  
J. M. Faulks \_\_\_\_\_ Carder  
E. L. Sord \_\_\_\_\_ Spinner  
T. E. Niles \_\_\_\_\_ Weaver  
Oscar Wakefield \_\_\_\_\_ Cloth Room  
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New Canebrake Cotton Mills.  
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Red Springs Cotton Mill.  
Red Springs, N. C.

6,960 spinning spindles; 160 looms.  
J. C. Monjoy \_\_\_\_\_ Supt.  
J. W. Swan \_\_\_\_\_ Carder  
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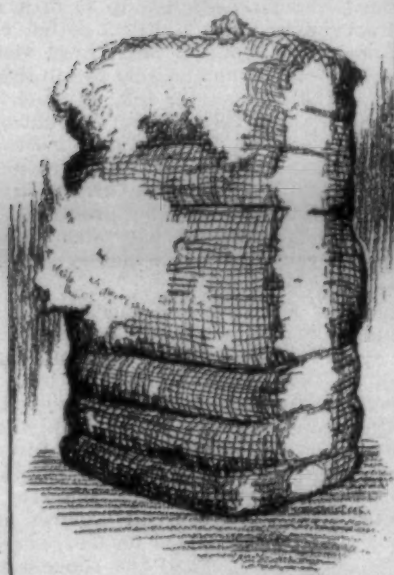
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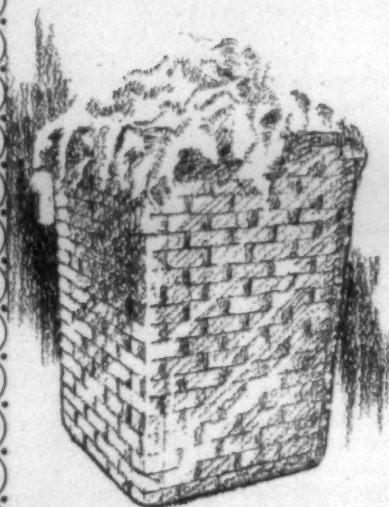
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## Dyeing Artificial Silks or Rayons

(Continued from Page 50)

In the so-called sulphoto dyes we have a group of modified acid dyes suitable for dyeing acetate silks. These are based upon the discovery that the presence of the ethereal sulphuric acid group— $C_2H_5SO_4-H$  attached to nitrogen has a somewhat similar function to the sulphonic acid group. Certain dyes containing such groups are readily taken up by acetate silk from neutral, acid or alkaline baths producing a variety of shades of good fastness to light and washing.

Quite recently a group of Setacyl Direct dyes for acetate silk has been announced by the Geigy Company. They are in a powder form, directly soluble in boiling water, and may be applied to acetate silk in a neutral salt bath the same as direct cotton colors.

These developments in regard to the dyeing of acetate silk have for the most part taken place within the past three years. Through them there has been opened an entirely new trend of thought in regard to the application of dyes and with this an impetus to the further study of various phases of the theory of dyeing. Some even prophesy that the new knowledge gained through the quest of suitable dyes for acetate silk may eventually lead to radical modifications of our present methods of dyeing other fibers.

A study of Table II will reveal several very pronounced differences between the dyeing properties of Fiber Groups A, B and C. By taking advantage of these differences it is easily possible to produce two-color effects in a single dye bath, and by using some discretion in the selection of dyes, and a little ingenuity in manipulation, even three-color effects may be produced upon undyed material if made with the proper mixtures of fibers. In this way the lack of affinity of acetate silks for dyes is used to great advantage in the production of many attractive combination color effects, and what was originally thought to be a serious defect in their make up has really proven to be one of their most useful properties.

The simplest contrast effects may be produced upon mixtures of Group B and Group C fibers. For instance, if cotton or viscose rayon are combined with acetate silk, the former may be dyed with a direct cotton color without even staining the acetate silk. By using a special acetate silk dye of the SRA colors, it is possible to reverse the process and have the cotton or viscose unstained. The two processes may be combined by using separate baths or in a single bath by using the proper color effects of almost any degree of contrast.

In real silk and acetate silk combinations the real silk may be dyed with acid dyes and the acetate silk with SRA or similar dyes. Some of

these dyes may also stain the silk to a slight extent, but this need not necessarily interfere with the production of excellent two-color effects.

In a real silk and Group B fiber mixture the real silk may be dyed with an acid dye, and the other fiber dyed with a direct cotton color. It is possible, by careful selection, to obtain direct cotton dyes that will scarcely stain the real silk, in which case the characteristic color of the acid dye will be maintained upon the silk. In case the direct cotton dye is one that dyes silk fiber the color of the silk will be a combination of the two dyes. Thus if an acid yellow and a direct cotton blue were used the Group B fiber would be dyed blue and the real silk green.

It might be well to note that direct cotton dyes will often rather unexpectedly stain acetate silk. This may not be a fundamental defect of the particular direct cotton color, but due to the presence of a small quantity of some extraneous dye that has been added for shading purposes or to increase its brilliancy. To avoid such difficulties the manufacture of the SRA dyes have put upon the market a brand of CR (Celanese Resist) colors which have been specially selected so as to avoid this difficulty.

Two-color effects may also be produced upon a Group B-Group C mixture by dyeing the Group C fibers with a basic dye and Group B fiber with a direct cotton color. In

this case the proper choice of dyes and manipulation of temperature are of considerable importance. Basic dyes have a decided tendency to stain both fibers at low temperatures, but as the temperature rises the dye gradually leaves the Group B fiber and goes on to the acetate silk.

In the production of three-color effects a mixture of all three fiber groups is commonly used. Thus a basic dye can be applied to the acetate silk Group C in a slightly acid bath, a direct cotton color to the Group B fiber, e. g., viscose or cotton, and an acid dye to the Group A fiber, e. g., silk, or wool. There would be a certain amount of overlapping, particularly between the acid dye and the direct cotton color, but nevertheless three distinct colorations may be produced. Other combinations may also be used in producing satisfactory multi-color effects.

Celanese and Lustron are fundamentally similar, but owing to the fact that they are manufactured by different concerns and by different processes they differ somewhat in their properties. Lustron will withstand higher temperatures and more alkali without affecting luster and strength than Celanese. Cotton piece goods with Lustron decorations may even be mercerized with caustic soda if the concentration is somewhat modified and the temperature kept at 40 degrees Fahr. or below. Lustron also has a greater

(Continued on Page 86)

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# The Link-Belt Company

By H. D. Mitchell, of the Link-Belt Company.

The engineering knowledge and manufacturing resources of the Link-Belt Company are at the service of the textile industry. The company has a long record of successful work in the design and construction of power transmission equipment, and its products are known throughout the world for their reliability and efficiency.

## A Decade of Development in Dye Manufacturing

(Continued from Page 36)

The dyeing industry has made great strides in the past decade. The development of new dyes and the improvement of existing ones have enabled manufacturers to produce a wider range of colors and to do so more economically. The Link-Belt Company has been instrumental in this development, its engineers having designed and constructed many of the most modern dyeing plants in the country.

The Link-Belt Company has been instrumental in the development of the dyeing industry in many ways. Its engineers have designed and constructed many of the most modern dyeing plants in the country. The company's products are known throughout the world for their reliability and efficiency.

The dates stamped on the roller cloth indicate when the cloth was put on.

The rolls have run continuously since the dates except when being releathered.

After all these years the roller cloth is apparently as good as new.

The ultimate durability of the Knoxall roller cloth is not known.

The rolls from which this illustration was made will be shown on application.

The use of Knoxall roller cloth is one of the economies that make modern cotton spinning a success.

Less breakage. Less waste. Even yarns. Stronger yarns. Less seconds in the woven fabric. More sides to the spinner. More profit.

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| J. L. Allen     | Day Spinner   |
| W. E. Crocker   | Night Spinner |
| F. J. Crocker   | Day Spinner   |
| J. R. Donaldson | Day Spinner   |

SEVENTEEN years ago the Link-Belt Company was thirty-six years old, having started in 1875 with an idea of a roller cloth which has been today what it is today.

The Link-Belt Company has been instrumental in the development of the dyeing industry in many ways. Its engineers have designed and constructed many of the most modern dyeing plants in the country. The company's products are known throughout the world for their reliability and efficiency.

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OVER 30,000 IN USE  
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ALL PARTS INTERCHANGEABLE  
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## The Link-Belt Company

By H. D. Mitchell, of the Link-Belt Company.

FIFTEEN years ago the Link-Belt Company was thirty-six years old, having started in 1875, with an idea of a chain drive and which has been developed into what is today the foremost engineering and manufacturing business of supplying machinery and chains for elevating and conveying material and for the efficient transmission of power with twelve manufacturing works, four warehouses, twenty-nine sales offices and over five thousand employees.

Link-Belt contribution to the textile industry has been considerable, in power plant equipment for handling coal and ashes, and water screens, in conveyors for handling materials in semi-finished or finished form, and perhaps more especially in the durable and highly efficient Link-Belt silent chain drives.

The fifteen years just past have seen wide acceptance of Link-Belt drives in woolen, worsted, silk and cotton mills. In the Southern mills enviable records have been made both in the number of installations and in the uniformly satisfactory results and durable operation. A specialized department of the company handles the manufacture, engineering and sales of silent chain drives and through the wide facilities has pioneered many developments and applications.

One Eastern textile mill has an installation of Link-Belt drives in service since 1902. What is probably the earliest Southern installation of chain drives on roving and spinning frames was furnished by this company for a mill in Georgia seventeen years ago and the original chains are still in service. Thousands of satisfactory drives have been furnished since.

The Link-Belt Company has pioneered many applications. In fact, the present standards of spinning and twister drives most generally accepted for both wheels and chains were first adopted by this company. Irrespective of the fact that many Link-Belt spinning frame drives have been in satisfactory service for ten years and more without protective casings the company was the first to develop a really efficient casing. After considerable study and experiment the automatic lubricating casing was developed for spinning frames and many installations have been made in the last five years. Also a satisfactory overhead or line shaft casing was developed and special departments at two plants manufacture nothing but casings. The casings protect the drives, lubricate efficiently, with a small supply of lubricant and are patented.

The increasing application of Link-Belt silent chain drives for individual operation of nearly all types of textile machinery has been an interesting subject, one given considerable attention by the company and which has result in many fine installations and uniformly satisfactory results.

The engineering knowledge and manufacturing resources of the company are at the service of their customers as well as continued co-operation which has proved of such value in the past.

### A Decade of Dye Manufacturing Development in America

(Continued from Page 36)

this grave evil from our national life.

I shall always feel indebted to our Southern mill men for the loyal support they have given at every step in the development of this industry. It was Fuller Calloway, of LaGrange, Ga., who first turned the tide in our favor at the memorable hearing on the Hill Bill in Washington in 1916. It was the fine leadership of Will Erwin, of Durham, which led the American Cotton Manufacturers' Association to pass the ringing resolutions at the convention of that association in Atlanta in the spring of 1916. Ever since that early year the support of the Southern mill men has never wavered.

I am confident that this country has determined that the dye industry shall be preserved as a national asset, for I think it is now understood by our people as a whole how intimately that industry with the great stimulation it gives to all lines of synthetic organic chemistry is bound up with all matters directly pertaining to the health of the nation, national defense and economic independence. It is a pleasure to me to send this message to a publication which is issued in Mecklenburg county where the spirit of American independence first gave itself voice.

### Important Developments in Preparatory Machines

(Continued from Page 37)

metal covers for drawing frame calender rolls and improved underscreens for revolving flat cards.

The H. & B. American Machine Company have always occupied an important place in the textile machinery trade and the list of users of their machinery reveals a distinguished clientele, whose appreciation of quality is expressed in the perfect performance of their equipment.

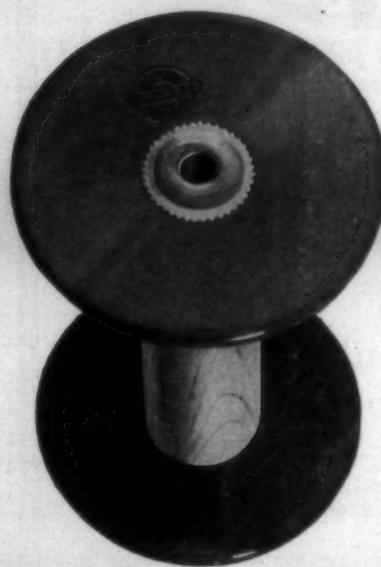
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Commerce, Ga.

15,080 spinning spindles; 448 looms.

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John Towns	Night Spinner
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H. B. Medley	Night Weaver
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C. V. Fagans	Day M. M.
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# Duplicate this record of savings in Your mill



## Lestershire Vulcanized Fibre Spools

will save money for you. Make a comparative test by equipping one of your machines with Lestershires.

- Reduce direct labor costs.
- Eliminate your spool replacement expense.
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- Eliminate all possibility of injury to employees from rough or splintered spools.
- Increase about 10% the yardage on your spools.
- Eliminate warper kinks and knots due to spools.
- Eliminate broken ends on your warpers due to spools and thus increase warper production 20% to 30%.
- Materially improve the quality of your warps; and thus better the quality and increase your production generally.

THREE years ago the mill in question bought their first Lestershire *Vulcanized Fibre Spools*. Careful check was kept on performance. Results were so satisfactory that wooden spools as they wore out were replaced with Lestershires. This company now

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through the economies effected by Lestershire *Vulcanized Fibre Spools*. They have eliminated the waste of frequent spool replacements, of yarn thrown away on broken spools, of unproductive labor hours. Spools in this mill are given the usual rough usage—yet today these Lestershires are as good as new, and will be indefinitely.

*Satisfaction Guaranteed*



Southern Office: 519 Johnston Building, Charlotte, N. C.  
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## MONOSULFOL OIL

### A Super-Sulphonated Castor Oil

**M**ONOSULFOL OIL takes the place of all ordinary sulphonated Castor Oils, Turkey Red Oils, etc., in dyeing wool and silk, and is used as a softener, dyeing assistant, and wetting out oil.

Having a higher degree of sulphonation than any other sulphonated Castor Oil, it will go much farther, penetrate better, and can therefore be used in reduced amounts. It gives a brilliant clear solution in water, and therefore has superior wetting properties.

On account of being low in soap content, it is not decomposed by hard water, and trouble with insoluble Lime or Magnesia soaps is therefore avoided. For the same reason it is not thrown out of solution by acids, or chemical impurities of dyes or other things, which would render an ordinary sulphonated oil completely unfit for use. This feature also prevents foaming.

### The Acid Test

In order to be sure that a sulphonated Castor Oil is properly made, so as not to be thrown out of solution by acids or other chemicals, a simple comparative test is very enlightening, as follows:

Take about 10 grams of Monosulfol Oil and 10 grams of any competitive oil. Dissolve each of these in 30 grams of water and stir thoroughly. Now add about 10 grams of 28 per cent Acetic Acid and stir in. The Monosulfol solution will remain without change, while the other oil will curdle and separate, floating out free oil to the surface.

This test not only proves the superiority of this oil for use in acid solutions, but is a proof of care and skill in sulphonation. Any oil which will not meet this test is dangerous to use, as it is liable to be affected by many chemical substances which would decompose it and weaken or ruin it for its intended purpose.

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204 Johnston Bldg.

BOSTON

### Dyeing Artificial Silks or Rayons

(Continued from Page 84)

affinity for basic dyes than Celanese. For these reasons Luston has proved to be of considerable value in the production of multi-color effects and for decorative effect threads used in connection with woolen and worsted piece goods.

With both types of artificial silk it is well to keep the temperature as low as possible and reduce the alkalinity to a minimum. In general acid may be used to neutralize alkali with the regenerated silks, but the acid must be finally washed out at the end. Material containing Luston should always be given an after-treatment with dilute sodium bicarbonate solution to insure that no acid remains. When acid must be used acetic acid is always preferable to mineral acids. Sulphuric acid should never be used with Luston or a boiling temperature with Celanese.

The dyer of artificial silk and of material containing this fiber often has worries and complications of a more serious nature than those coming from the actual application of the dyes.

In the first place softeners and softeners are frequently added to artificial silk to facilitate winding and processing in general. If these are of poor quality upon the wrong character they may cling to the fiber with great tenacity and much difficulty may be experienced in removing them previous to dyeing.

When handling skeins the dyer has a constant struggle against tangling and every precaution must be taken in this direction or it may be impossible to satisfactorily reel the skeins after he is through with them.

Skein dyeing of artificial silk still has to be done by hand since no machine seems to have been devised for satisfactorily handling it in this form.

One of the most exasperating troubles is that of light and dark skeins. Certain skeins in the same lot of silk without any apparent reason will dye considerably darker or lighter than the others. Different lots from the same manufacturer will sometimes dye differently, and if these happen to be mixed in a woven fabric, unevenness of color is quite sure to result.

Serious troubles also frequently arise through the fact that many types of rayon lose much of their tensile strength when wet. The regenerated cellulose silks are no doubt the worst offenders in this respect since they often lose from 70 to 80 per cent of their original strength when wet. Fortunately the original strength is restored upon drying, but before this takes place the fabric may have become hopelessly stretched out of shape.

The acetate silks are far superior in this respect. In their normal dry condition they are not as strong as the regenerated cellulose silks, but they lose so little when wet that their tensile strength under these conditions is superior.

In finishing a mixed fiber fabric unequal stretching of the rayon and lack of elasticity often causes troubles. All processes must be conducted in such a way as to avoid undue handling or stretching of the material when wet, and it should not be put through anything in the nature of a wringing machine.

In the home dyeing and dry cleansing of fabrics containing rayon, it is well to be sure which of the two types of fiber are present since they require different treatment. The so-called "home dyes," many of which are on the market will dye the regenerated cellulose silk quite well, if the material is carefully handled when wet, but most of them being of the direct cotton type will have little if any coloring action on the acetate silks.

Certain dry cleansing agents, particularly those of the halogenated type, also have a decided solvent action upon acetate silk, and may completely ruin a fabric if it contains much of this fiber.

The question is sometimes asked, "Why is it not possible to incorporate coloring matters with the spinning solution and produce a colored instead of colorless fiber and thus obviate the trouble and expense of dyeing." It would be possible to do this, in fact, it was done with some success during the early days of the rayon industry. It is, however, impracticable for several reasons among which two are perhaps more outstanding than the others.

First, with practically all of the spinning solution the spinning solution is extremely sensitive to almost any extraneous influence. It must be prepared in a certain state of physical and chemical equilibrium in order to spin properly, and it is sufficiently difficult to properly maintain this condition even when practically the same spinning solution is used each time. The introduction of dyes of varying composition and other necessary assisting chemicals would make it necessary to work out special spinning conditions for each dye or combination of dyes and undoubtedly complicate matters far in excess of any advantage that might be gained.

In the second place, the production of colored silk yarns by this method could not adjust itself to present day merchandising conditions. With styles and color requirements changing overnight, as it were, the manufacturer would continually find himself overstocked with colored silk for which there was no demand. Furthermore, the tremendous stocks of dyed silk which would have to be carried would be prohibitive.

Dyeing methods and the quality of dyed silk have also improved so much in the past few years that the desire for this direct method of coloring scarcely exists today.

In closing there are certain points to which I would specially call your attention:

First, that the rayons are not substitute fibers, but additional fibers. They do not replace either silk or cotton, but supplement them in many ways. When used with cotton, for instance, they make it possible to produce a fabric much

(Continued on Page 90)

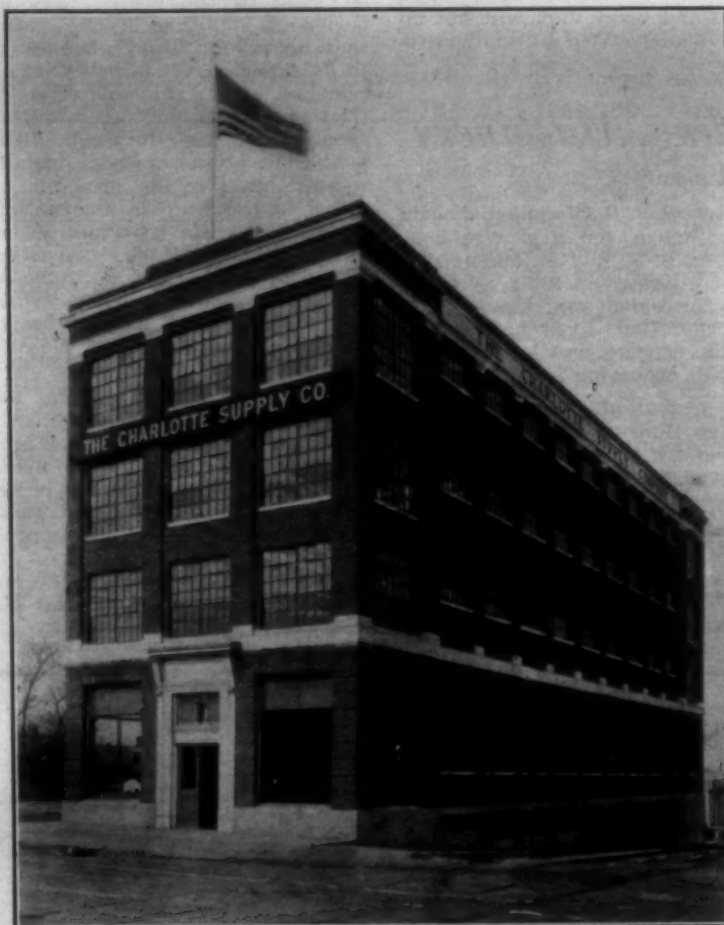


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1926

37 Years

Serving and Selling to Southern Textile Mills



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Work Promptly Executed

**The Charlotte Supply Co.**

Corner Mint and First Sts.

Incorporated 1889

Charlotte, N. C.



## Dyeing Artificial Silks or Rayons

(Continued from Page 86)

more attractive in many ways at an extremely moderate increase in cost.

Second, that in many respects the rayons are quite different from other fibers, and therefore must be treated differently during the various dyeing and finishing processes. The disregard of this fact perhaps more than anything else has been responsible for the unsatisfactory results that have sometimes been obtained in the dyehouse and finishing room.

Third, that there are two very different types of artificial silk: those of the regenerated cellulose type and those of the cellulose acetate type. They are as different as are cotton and wool, and must be dyed by different methods and handled quite differently in many respects.

Finally, the rayons or artificial silks have undoubtedly come to stay and must be allotted their place among the commercial fibers. The textile industry must adjust itself to their entry and the consuming public must learn what these fibers will do and what they will not do and thus adapt itself to their possible uses.

woolen cards, napper rolls, garnets, calender rolls, shear revolver and ledger blades. This concern specializes in these machines, building nothing else whatever, and takes pride in turning out grinders which have become the standard machines of the trade.

The name "Roy" occurs immediately to any textile mill man whenever a grinding proposition arises. Their products have been shipped all over the world—to China, Japan, Norway, Sweden, Denmark, England, India, South America, and as far away as New Zealand.

## Improvements in Grinding Machinery

By B. S. Roy & Sons Company

The well known firm of B. S. Roy & Son Co., specializing in grinding machinery for textile mills, was founded in 1868—58 years ago, by Bozil Sylvanus Roy. The inception of the concern was the result of letters patent being granted B. S. Roy for a new idea in card grinders. His original and subsequent ideas on grinding machinery revolutionized the card grinding industry.

In 1902, his son, Sylvanus B. Roy, was taken into partnership with him and the firm name changed to B. S. Roy & Son. Sylvanus B. Roy had numerous patents granted in his own name and materially improved many of those taken out by his father.

Bozil S. Roy, the founder, died in 1906, although the firm was continued as B. S. Roy & Son until it was incorporated in 1915. Sylvanus B. Roy, president and treasurer of the corporation, lived but a year after the concern was incorporated, his death occurring in 1916.

The present officers of the concern are Duncan H. Dewar, president and treasurer, and William A. Underwood, assistant treasurer and general manager.

B. S. Roy & Son Co. branched out and have adapted the original patent ideas to the grinding of a number of different textile machines, such as cotton cards, worsted cards,

THE power transmission equipment of the present day has become so stabilized in its essentials that no revolutionary changes are to be expected. It is true that application of the principle of rolling friction has been elaborately attempted during the last fifteen years, but in the ordinary installation of shafting the principle has failed to prove up to expectations. Theoretically, the principle is good. It offers excellent sales and advertising argument. It is a benefit when used in loose pulleys or where the shaft is fixed and the bearing revolves about the shaft. We often build loose pulleys this way.

This company has spent over three-quarters of a century developing shaft bearings and other allied equipment. Nothing new, no matter how good it looks, is offered or recommended until it has passed through our rigid investigation and test period. The possibility of successful sales argument in no way affects our conclusions. If it does not prove to be economically cor-

rect for the buyer, we consider it unfit for distribution as a transmission adjunct.

By adhering to this policy we have always been able to turn out a satisfactory equipment: one which we could offer with full confidence and one in which the buyer has always been adequately protected.

Our present service also includes remodeling power transmission equipment of industrial plants and on this class of work we can often show a saving of from twenty to fifty per cent of the friction load. This saving, of course, depends upon the present condition of the plant and how far the owner is willing to accept our recommendations.

We have as a part of our organization two crews of expert millwrights. One crew has its headquarters at the plant in Philadelphia, while the other crew is at Greenville, S. C., under the direction of our Southern representative, A. G. New.

## Power Transmission Equipment

By J. Charles Hinton, of William Sellers & Co., Inc.

# "TUFFER" WIRE

A new development for

## CARD CLOTHING

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# WHY WE MARKET THROUGH WHOLESALE CHANNELS

*a Production of Over Sixty Million Yards Monthly*

**F**OR a quarter of a century Hunter Manufacturing & Commission Company has marketed through wholesale channels the output of mills represented. Facts obtained through searching investigations convince us that there are more reasons now than ever before for adhering to this policy.

In late years the important question of distribution has received much thought and has been the subject of general conversation. Numerous experiments have been tried. The position of the wholesaler has been questioned. In such a situation facts are essential. Accordingly, this Company made an exhaustive study of textile distribution. This study showed that far-reaching changes have taken place in the extent and character of the service demanded of the wholesaler. It also showed conclusively that the progressive wholesale merchant is today a very vital factor in distribution.

Obviously there must be some organization to perform a wholesale service in the chain of distribution, and facts prove that this service can be performed efficiently and economically by a progressive wholesale merchant.

From the mill to the sale over the counter certain essential steps take place. Each

step involves cost and time. It is impossible for the manufacturer to perform these functions, assume these elements of cost, and sell at real wholesale prices.

If the retailer assumes these functions and costs he must pay, directly or indirectly, what he would pay to the wholesaler, without obtaining the benefits of wholesale service.

By maintaining fresh and complete stocks and rendering prompt delivery service, the progressive wholesaler enables the retailer to operate efficiently on a smaller inventory and at the same time maintain a wider merchandise sales appeal. The retailer thus obtains larger volume, faster turnover, and greater net profit. The wholesaler has the only organization prepared to supply the retailer with this service.

Through volume the wholesaler effects important savings. He assumes important merchandising risks, and he helps to stabilize manufacturing and distribution by leveling out the peaks and valleys of retail demand.

Every yard of textile products marketed through the progressive wholesaler should carry an added value due to the economies and services he makes possible.

## HUNTER Manufacturing & Commission Co.

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*Sales Agents for 84 Leading Textile Mills Whose Products Include*

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Duck

Single and Double Filling  
Ducks  
Wide Grey Goods  
Wide Sheetings  
Bed Spreads  
Sheets and Pillow Cases  
Durham Hosiery  
Arab Hosiery  
Venetian Hosiery



## The Development of Textile Manufacturing in Texas

(Continued from Page 28)

and, it should be noted, in Houston, Waco and Dallas there are two such establishments each.

In 1889 there were but four cotton mills in the entire State of Texas. By 1904, a period of 15 years, the number of mills increased to 13. During the next 15 years there were only two additions to the Texas cotton mills. In the past seven years, however, there has been a somewhat increased ratio in the establishment of cotton mills in the State, there having been 13 new mills placed in operation. Were hosiery mills, yarn mills, bleacheries and dye plants, mattress factories and other miscellaneous types of cotton manufacturing plants included in the list, the total in Texas at the present time would be 70.

### Texas Cotton Mill Spindleage.

Cotton mill spindleage forms a very sure index to the activity of the manufacturers. An examination of the number of active spindles in the State will be interesting, in that it shows a steady increase.

1900.....	48,756
1910.....	90,010
1923.....	155,104
1924.....	193,100
1925.....	241,158

At the present time the conditions influencing the manufacture of cotton cloth in Texas are very attractive. The labor situation shows a condition which very nearly ap-

proaches the ideal. There was a time in the past when a new cotton mill establishing in Texas was faced with a serious labor problem. Not so today. The pioneering work has been done and there are now seventy plants of various types operating successfully in the State.

Evidence that the labor available for new cotton mills in Texas is of the very highest type is contained in a statement by Mason T. Whiting, Southwestern representative of Charles T. Main, engineer. In speaking of the Worth Mills, recently put into operation at Fort Worth to

manufacture cord tire fabric for use in automobile tires, Mr. Whiting stated:

"More than 2,000 applications for jobs were received. Due to the efficiency of the workers and low starting expense it has been found possible to reduce the total capital required by \$100,000."

Mr. Whiting went on to say that most of the labor was untrained and many of the new employees were just out of school, but the interest and intelligence shown was remarkable. After two months of training they were doing work which would

have required a year's training in most New England mills.

The establishment and operation of the new mills established in the past seven years has had the effect of bringing cotton manufacturing to the attention of the people of Texas and great interest is being taken in the industry. In addition to the well known Texas Textile School at College Station, Texas, which operates upon an educational basis twenty-three looms and gives instruction in spinning, warping, weaving and dyeing, there is now being established at Lubbock, in west Texas, another school, the Texas School of Technology, which is installing complete machinery for the manufacture of both cotton and woolen cloth. Special courses of instruction are being offered which will fit the graduates to hold positions as superintendents of cotton and woolen mills. This is unquestionably one of the biggest forward steps taken by the State toward the fostering of the textile industry in Texas.

### Texas Labor Conditions.

An editorial in the Dallas Journal, Dallas, Texas, states:

"Richard Woods Edmonds, a representative of the Manufacturers Record, has been making a study of conditions surrounding the textile industry in the New England States, reporting his findings and observations in a series of letters to his paper. His latest letter presents evidence to support his previously expressed belief that one of the factors responsible for the move-

(Continued on Page 94)



Part of Spinning Department, Dallas Textile Mills, Dallas, Texas.

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Used and ordered by Representative Mills for Automatic Silk Looms, Automatic Cotton Looms, Automatic Worsted Looms, Box Looms, Plain Looms, on Fancy Weaves, Jacquard Weaves, Leno Weaves.

The Warp Stop with twenty-four years' record of:—Reliability, Sustained Efficiency, Low Maintenance Cost.

The Warp Stop which is being ordered today by mills which ordered their first K-A Electrical Warp Stops over twenty years ago.

**The Warp Stop which many representative Southern Mills are adopting.**

The Warp Stop that for twenty-four years has offered all the advantages of the most up-to-date mechanical motions—and more.

The Warp Stop with no continuously moving mechanism on the loom.

The Warp Stop concerning which you owe yourself first hand information, which information, with corroborative references to satisfied customers, can best be obtained from

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ATLANTA, GA.



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The Pacific Mills are the largest manufacturers in the world of bleached, dyed and printed cotton goods and cotton warp and all-wool dress fabrics, producing over 800 miles of finished fabrics every working day. Their product includes Cotton Goods of every description, such as dyed and printed Crepes, Percales, Galateas, Cambrics, Shirtings, plain and printed Cotton Flannels, Cotton Draperies, Muslins, Cambrics, Nainsooks, Jeans, Suitings, Lawns, Drills, Shoe Linings and Flannels; wide Sheetings, Sheets and Pillow Cases. In their worsted and dress goods departments they make a very large range of all-wool and cotton warp Serges, Gabardines, Crepes, Cashmeres, Taffetas, Poplins, Panamas, Coverts, Batistes, Sicilians, Linings, Granites, Challies, Flannels, etc. They are now developing extensive lines featuring Artificial Silk (Rayon) in both cotton and worsted fabrics. All Pacific products are unequalled for uniform weave, superb coloring and uniform finish and are sold at reasonable prices.

## MERRIMACK MFG. CO.

Lowell, Mass.

Huntsville, Ala.

Manufacturers of an extensive line of Corduroys for Men's Wear, Women's Wear and Upholstery purposes; Khakis, Fustians, Moleskins, both piece dye and Black and Whites, Suedes, Velveteens and Velours. All of which are woven, dyed, printed and finished in their own works, in many styles, colors and finishes. The mills at Huntsville, Ala., make a variety of gray cloths in print cloth yarns intended for converting purposes.

## IPSWICH MILLS

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The oldest and one of the largest Hosiery Mills in the United States. They knit complete lines of Men's, Women's and Children's pure Silk, Wool, Rayon and Cotton Mercerized Seamless and Full-Fashioned Hosiery, in very many grades and styles.

## WHITTENTON MFG. CO.

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Large manufacturers of fine dress Gingham, Fine Tissues, Verasheen Rayon, Jacquardine Rayon, Rayon Etamine and various Fancy Suitings. Domestic and China Cotton Crib Blankets, Domestic Jacquard woven Bathrobes and double weight China Cotton Blankets in Indian and other designs.

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Producers of a large range of Army, Shoe, Hose, Belting, Sail, Wide and Waterproof Duck, Combed and Carded, and Cord Tire Fabrics, Press Cloths, Filter Twills, Awning Stripes, Linen and Cotton Crashes, Towels, Gray Print Cloths, Drills, wide and narrow Sheetings.

*We solicit the privilege of submitting samples and quoting prices for the unequalled lines of Textiles, carefully woven by these representative Mills from Wool, Cotton, Silk and Rayon, that in every respect, fully satisfy the requirements of the domestic and all foreign markets.*

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Cable Address: UNITREALM, New York



(Continued from Page 92)

ment of spindle supremacy to the South is the foreign labor element in the textile plants of the East.

"The problem which this element presents may be appreciated from Mr. Edmonds' report that in one New England mill seventeen different nationalities are employed, speaking seventeen different languages. The task of the foreman is to make himself understood by each of these nationalities and to obviate friction between them. That this is a difficult, if not impossible, task is the belief of Mr. Edmonds, which opposing beliefs by certain New Englanders have not shaken.

"In Southern mills only Anglo-Saxon labor is employed. The fact that dealing with but one racial element—and one with which we are most familiar—increases efficiency of operation cannot be questioned, and it has doubtless had much to do with the swing of textile leadership to the Southern States."

The labor employed in the Texas cotton mills is practically 100 per cent native white and, according to the 1920 census, the available supply of native white labor between the ages of sixteen and twenty years was 320,651. As an index to the value of this type of labor it should be noted that the percentage of illiteracy among the native white labor of Texas is but 1.7. This is a lower percentage than in any other State in the South with the exception of Oklahoma.

The comparison of Texas labor

with the labor in the New England mills is also made by John W. Carpenter, vice-president and general manager of the Texas Power and Light Company. Mr. Carpenter recently went to the mill centers of the Northeast and Southeast and studied their history, their methods and their growth. He talked with economists, financiers, engineers, mill owners, mill operators, mill superintendents, mill workers, brokers; everybody even remotely connected with the textile industry. He reports:

"That trip convinced me that the Southwest is the logical place for cotton mills. The mills of the Southeast, for instance, are in much better condition in every way than the mills of the New England States. Labor conditions are better, and their closer proximity to the cotton fields gives them many advantages not enjoyed by the Northern mills. Naturally, Texas, where nearly half of the nation's cotton is produced, has a margin over even the mills of the Southeast.

Labor costs in Texas average about the same as they do in other States. However, the unit production of the Texas textile labor is somewhat higher than in most other States. This is primarily due to the unusually high type of labor available. There is not, however, any unusual difference in the hours of labor. As a matter of fact, the difference amounts to but one hour a week. Texas has a 60-hour maximum labor law for female employees in the cotton manufacturing

industries but there is a provision requiring the payment of overtime for all over nine hours per diem. Most of the Texas mills, as is generally the case in the South, operate upon a 55-hour schedule, paying one hour overtime per week.

#### Texas Power Costs.

With the exception of a few mills, all cotton mills in Texas use electric power. The rates on electric power in Texas are very favorable when compared with the rates in other States. Rates vary in different sections of the State, of course, and it is impossible to make an exact comparison. However, power rates to cotton manufacturers will average from \$.0095 per kilowatt hour to \$.02 per kilowatt hour, depending upon the size of the mill and the hours of operation.

The taxation problem in Texas is no more severe than it is in other States. There seems to be a general misunderstanding in other sections of the country concerning the foreign corporation laws of Texas. While the costs in Texas are not the lowest by any means, neither are they the highest and foreign corporations are taxed upon exactly the same basis as domestic corporations. In this article it is not possible to delve deeply into the question of taxation. It may be accepted as a fact that cotton mills from other States who may in the future locate in Texas need not fear that their taxation costs will be overburdensome.

With all conditions favoring the manufacture of cotton (and woolen)

goods in Texas it seems reasonable to suppose that a trade balance will assert itself and that Texas will shortly witness the establishment of many new mills. According to LeRoy Tope, authority on economics:

"Twenty years ago it was emphatically denied that the industry would ever leave New England, but today we find that nine Southern States among the seventeen cotton manufacturing States control 98 per cent of the production—and we find that the second, third and fourth of those States are Southern States. At that time few people thought the South or the Southwest would ever become an important center for this industry, yet we find even Mississippi one of those seventeen leaders. Mississippi produces twelve million dollars with Texas nineteen million dollars yearly.

"Now, if these Southern States, which the people little thought then would become large manufacturers of this line, are already fast forging into leadership, what about the next twenty years?"

The economic conditions that fostered the original exodus of cotton manufacturers from New England are again making themselves felt, this time in the very Southeastern States which received the benefit of the first territorial move.

Texas, producing over one-third of the cotton of the United States, with its manufacturing and labor conditions approaching the ideal and with vastly improved transpor-

(Continued on Page 96)

**SINEWY-FLEXIBLE-PLIABLE-TOUGH**

THESE ARE THE WORDS THAT APPLY  
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OUR BUSINESS ETHICS  
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Columbus Mfg. Co., Columbus, Ga.

Dixie Cotton Mills, La Grange, Ga.

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Equinox Mills, Anderson, S. C.

Gluck Mills, Anderson, S. C.

Palmetto Cotton Mills, Palmetto, Ga.

Piedmont Cotton Mills Co., Egan, Ga.

Samoset Cotton Mills, Talladega, Ala.

Sherman Mfg. Co., Sherman, Tex.

Suncook Mills, Suncook, N. H.

Warwick Mills, Centreville, R. I.

West Point Mfg. Co., West Point, Ga.

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Riverdale Mill, Riverview, Ala.

Shawmut Mill, Shawmut, Ala.

New England Bunting Co., Lowell, Mass.

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Sheetings, Drills and Twills, Fairfax

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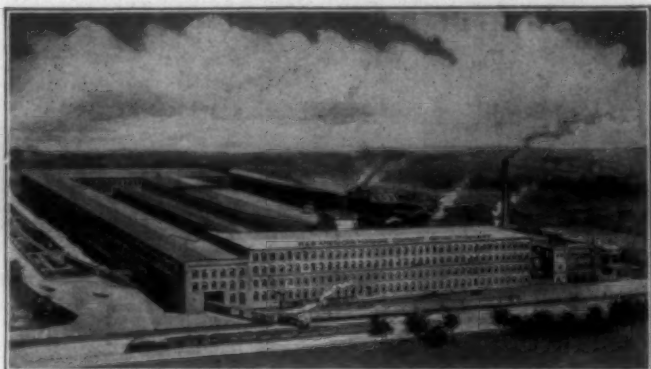
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ROVING FRAMES  
SPINNING FRAMES and TWISTERS  
(Band or Tape Driven)  
SPINDLES—FLYERS  
RINGS—FLUTED ROLLS

*Write for descriptive Bulletins*

## H & B

### American Machine Co.

Pawtucket, R. I.

Southern Office

814-816 Atlanta Trust Co. Bldg.

Atlanta, Ga.

(Continued from Page 94)

tation facilities, is the last outpost of the South, one of the few Southern States which offers room for great development in this field.

An examination of the figures showing the production and consumption of cotton during the past fifteen years throws some very interesting light on this situation. The following figures are taken from the Blue Book of Southern Progress, published by the Manufacturers Record at Baltimore:

are a few of the savings possible to the manufacturer who is conveniently located for raw material.

"Second: Intelligent labor available at a reasonable cost. Labor in Texas will always be cheaper than in most other States, especially in southern Texas, because of the milder climate which saves fuel, food and clothing. Texas labor is energetic and can be trained to turn out the finest class of textiles. This has been demonstrated by the textile mill at New Braunfels, which is making fine rayon goods, silk

1910.  
(In bales of 500 pounds)

	Production	Consumption	% of Production
Alabama	1,078,000	226,284	20.98
Arkansas	718,000	5,830	.81
Georgia	1,927,000	473,332	24.56
Louisiana	282,000	10,341	3.66
Mississippi	1,121,000	27,654	2.46
North Carolina	676,000	634,933	93.92
Oklahoma	566,000	2,058	.36
South Carolina	1,184,000	605,255	51.11
Tennessee	316,000	66,192	20.94
Texas	2,676,000	25,256	1.05

1924.

	Production	Consumption	% of Production
Alabama	710,000	386,164	54.38
Arkansas	725,000	10,816	1.49
Georgia	790,000	826,224	104.58
Louisiana	394,000	33,944	8.61
Mississippi	758,000	45,705	6.02
North Carolina	1,262,000	1,156,476	91.63
Oklahoma	705,000	8,607	1.22
South Carolina	920,000	897,570	97.56
Tennessee	609,000	138,583	22.75
Texas	4,402,000	94,837	2.15

\*Includes Kentucky and Virginia.

\*\*Includes Missouri, California and Arizona.

An exact comparison between the years of 1910 and 1924 cannot be made because of the difference in the production figures. Nevertheless, it is readily seen that in Georgia and the Carolinas the consumption of cotton practically equals the production. As additional mills are established in these States it will become necessary to look without the confines of those States for the requisite raw material. Texas, on the other hand, is consuming less than three per cent of its cotton production and offers room for great increases in cotton manufacturing.

In addition to these factors, Texas itself is one of the largest consuming States of the Union and, close at hand, will be found the other States of the Southwest which aggregate about 45 per cent of the area of the entire nation. Is it not logical, then, to predict that the next great movement in cotton manufacturing will be westward? In fact, the movement has already started. With the economic pressure growing more acute in the Southeast, the State of Texas stands today on the threshold of remarkable developments in the textile industry.

Referring again to S. N. Ransopher, president of the Planters and Merchants Mills of New Braunfels, in south Texas, he states:

"The one industry which is destined to become of first importance in Texas is the textile industry. There are many reasons for this.

"First: The proximity of raw material. Both cotton and wool are available in all grades and immense quantities. Handling, brokerage, shrinkage, as well as freight costs,

striped madras and gingham that compare favorably with the best imported or Eastern made goods.

"Third: Transportation. The Texas railroads serve the State in every direction to every State in the Union as well as direct lines into Mexico. The harbors of Port Arthur, Galveston, and Houston and, before long, Corpus Christi, afford water connections with the world's markets. These ports, and others, are destined to become very large shipping centers and, with low freight rates, will give Texas a great advantage.

"Fourth: Power and fuel. The immense deposits of oil, gas and lignite in the State indicate that electric power will be produced in Texas as cheap as or cheaper than in other States. In addition to this, there are many fine water power sites available.

"Fifth: Markets. The growth of the West and the Southwest creates a tremendous home market for Texas manufacturers. The fine ports also open the world's markets to those interested in exporting.

"Sixth: Capital. There is plenty of capital available in the State for investment in the textile and other industries. Investors in the State have been in the habit of investing in cattle and lands rather than in industries. Texas industrial investments have generally paid well but the public must be educated to diversify its investments just as the farmer should diversify his crops.

"Seventh: Management. The proper personnel to manage Texas industries will be a gradual development. Industries now established are developing men who will become the future managers and, of course, many will be attracted from

(Continued on Page 100)

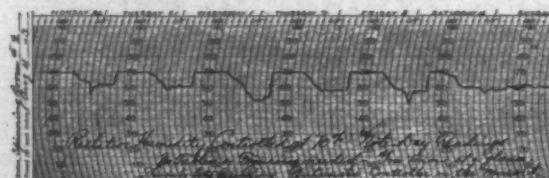
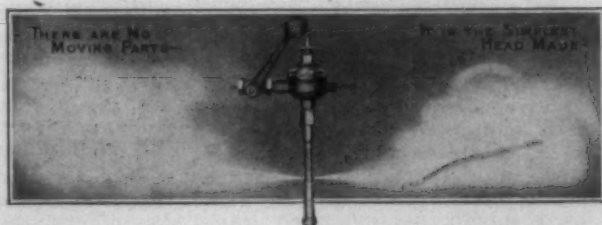


# Your Humidifying System

**W**HAT is it that causes Humidifier Heads to slow down in their output of moisture, sometimes, yes frequently, to the vanishing point?

When first installed they are 100 per cent, then, as days go by, 90 per cent—70 per cent—50 per cent—30 per cent—and then no moisture at all.

Answer. Complicated mechanisms, intricate in construction, containing motors, fans, wheels, drip pans, strainers, return pipes, moving parts, etc., dust and dirt catching.



## Self-Recording Automatic Control

What is it that makes the RHODE ISLAND HUMIDIFIER HEAD work at 100 per cent every day, week and year?

Just this. Simple in design and construction, no motors, no fans, no wheels, no drip pans, no return pipes, no dirt-catching apparatus of any kind.

RHODE ISLAND HUMIDIFIER HEADS do not clog. The success of the system in more than 400 mills is due 90 per cent to two outstanding advantages. No cost of upkeep and no loss of production by reason of Heads stopping up.

This is the only Humidifier Head made where it is easily possible to find out AND KNOW whether or not it is delivering the amount of water that is claimed for it.

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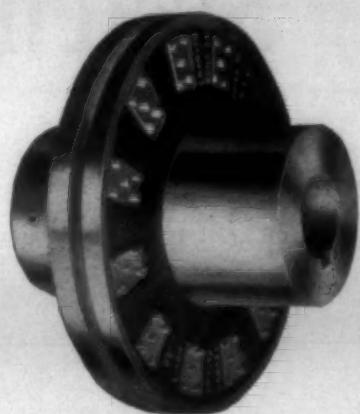
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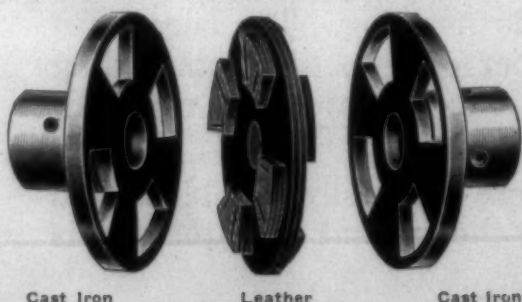
**Over 100,000 In Use**

In the old days when a textile mill needed a new coupling, an order was written up for couplings to be filled at the nearest mill supply house. In those days "couplings were couplings."

More modern practices rule today. The old "rule o' thumb" has made way for more scientific and intelligent buying. The modern textile superintendent knows too much to buy on the old theory that "one coupling is as good as another."

Service and dependability are the deciding factors in judging the merits of couplings and it is on these two points that Grundy Patent Flexible Insulated Couplings have won their wide recognition. Just analyze the seven salient features of the Grundy—and then think what a Grundy could do for you!

1. *Takes care of uneven strains.*
2. *Self-adjustment insures perfect alignment of shafts.*
3. *Can be used whether insulation is required or not.*
4. *Perfectly balanced, and adapted for revolving at high speeds.*
5. *Runs in either direction; is closely connected; easy of access; practically no repairs.*
6. *There are no projections to cause damage.*
7. *Maintains a positive and silent drive; free from objectionable hammer action features.*



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**COMPANY**

Leather Curriers, Importers and Belting Manufacturers  
617 Arch Street Philadelphia, Pa.

## Improvements in Ring Travelers

By the National Ring Traveler Company

THE National Ring Traveler Company begs the privilege of extending its congratulations and best wishes to the Southern Textile Bulletin, on its fifteenth birthday. We have been constant readers of the Bulletin over quite a period of years and we are able to testify to the gratifying fact that it has always been devoted to the best interests of the textile industry as a whole, while it has undoubtedly been a tower of strength to the textile industry which is situated in the Southern section of our country. It is our sincere wish that the Southern Textile Bulletin shall continue to grow and prosper.

Progress measures and defines the great chasm which has been sealed by the textile industry from the days of hand cards, spinning jennies, and hand looms to the present, almost human, power textile machinery. Recent generations have observed a complete revolution in card room equipment. The automatic loom has revolutionized weaving in a great many of its most important aspects, while at a slightly more remote day, the high speed spindle revolutionized spinning. It is a significant fact, however, that with the adoption of the high speed spindle, constructive work in the spinning room has been held in abeyance, while the card room and weave room have monopolized the concentration of manufacturing thought.

What can be accomplished in the spinning room under modern conditions of manufacturing, largely depends upon the endurance of the ring traveler. It was with this thought in mind that about four years ago, the management of this company became convinced that further progress in ring spinning must be brought about by increasing the endurance and stability of the traveler. It was discovered that this particular phase of the textile situation as far as the patent situation was concerned, had been sadly neglected. A period of fifty-seven years had elapsed since a new principle in travelers had been patented and recorded in the United States Patent Office. A situation herewith presented itself which merited close study and attention. In carrying on a series of experiments the object of which was to reduce the loading of the traveler within the traveler itself, an entirely new and revolutionary heat treating condition was discovered, which opened up a wide latitude for experimentations and developments, with the result that an extended line of patents has been granted in the United States and England on ring spinning and twisting travelers together with machines for manufacture. The durability and life of spinning travelers have been doubled. Textile engineers have become much interested in this development work and progress made by the leading manufacturers of the country. Manufacturers have resurrected the subject of travelers and have now come to

the realization that this important spinning room essential is brought before them in a new form and is to be considered from a new standpoint.

In many mills production has been increased. The quality of yarn has been improved and many economies and advantages have come to the front. This development work in the ring traveler field has stimulated manufacturers or other essentials to improve the quality of their product. It has resulted in a more intimate acquaintance and co-operation between spinning ring manufacturers and this corporation, and it is not unreasonable to believe that other new developments will follow, and that a new era is at hand as regards the progress of ring spinning. Results and confidence to a degree sustains this deep seated belief. It is evidenced on every hand by the thinking and studious manufacturers in seeking consultations and studying questions bearing upon this vital subject.

This corporation holds itself in readiness to respond to all inquiries for information in accordance with the outline herein given. It is ventured, however, that the new principle involved in the heat treating of ring travelers is only in its infancy and if the interest which is already manifested continues to increase in the future, as rapidly as it has developed in the past three years, magnificent results will spell in large and prominent letters, the word "Progress," in ring spinning.

### Whitin Machinery Contributes to Textile Development

(Continued from Page 42)

the head end or our patented self-contained swiveling panel.

In closing we would like to say that we have chosen as points illustrating our preamble the standard machines. In addition to the above, many improvements have been made in twistors, spoolers, flyer twisters, waste machinery and quillers.

We have also extended, during the comparatively short existence of our friend, the Southern Textile Bulletin, our line of endeavor so that today we are in touch with the textile world in most all its ramifications.

Silk, worsted, wool, asbestos and rayon, and the machinery necessary for the handling of these fibres, are all receiving our most careful consideration. Just as we have branched out in these last fifteen years just so has our organization of experts on various and sundry machines expanded so that today we are always ready to investigate any matter which is of interest to our friends in the mills.

Again, we wish the Southern Textile Bulletin many happy returns of the day and assure them that we hope its existence will never end and that it will prove increasingly valuable to one and all in the days to come.



# Bobbins and Spools

Filling Bobbins---for plain and automatic looms

Warp Bobbins---Warp or filling

Twister Bobbins---solid or three piece

Speeder, Intermediate and Slubber Bobbins

Skewers and Rolls

Warp and Twister Spools---plain or with metal shields

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*Southern Agent*

**A. B. CARTER, Gastonia, N. C.**



### Terrell Machine Co. Enjoys Rapid Growth

The Terrell Machine Company was incorporated in June, 1917. At that time the company built only one machine, the Utsman quill cleaner for cleaning automatic loom bobbins.

In 1918 it was seen that the facilities offered by the original quarters were not going to take care of future developments, and a site was purchased for a new shop, which was built during the spring of 1920, and occupied during that summer.

In 1920 the company introduced its Termaco roving bobbin cleaner. This machine was of such novel construction that it changed existing ideas as to cleaning bobbins and reworking waste. Its success was immediate.

From 1920 to 1924 the company extended its field by purchasing several bobbin cleaning machines, notably the Kleanol, built by Brown-St. Onge Company, the Walworth machine, the Old Colony bobbin cleaner, manufactured by the Old Colony Machine Company, and the bobbin cleaning machines built by the Cormpton & Knowles Loom Works.

The purchase of these various machines required doubling the size of the plant, this being done in the spring of 1925.

Foreign inquiries resulted in the establishment of two agencies in England for the handling of European orders. George Thomas & Co.,

Ltd., Manchester, England, sell the Utsman machine, and Wm. Tatham, Ltd., Rochdale, England, manufacture and sell the Termaco machine in foreign countries excepting Canada.

In the United States the selling is handled direct so far as the South is concerned. In New England, New York and Canada the company is represented by the General Supply Company, Danielson, Conn. Stocks of parts are carried at different agencies.

It is roughly estimated that the machines built by the company since 1917 have resulted in a reduction of personnel of between 1,000 to 1,500 employees who were formerly required to do the work by hand. Machines are in use in every textile State in the Union, and in seven foreign countries.

The machines are thoroughly standardized and are becoming recognized as standard equipment by leading mills both here and abroad. By offering definite methods of waste control, as well as through reduced labor, these machines have enabled savings of very considerable amounts to be made, savings which were formerly overlooked or regarded as impossible except through the use of top heavy systems.

### Use of Non-Fluid Oil Grows Steadily

(By the N. Y. & N. J. Lubricant Co.)

On this, its fifteenth birthday, we tender our hearty congratulations

to the management of the Southern Textile Bulletin. It may well be complacent today, as it pauses to review the splendid development of the textile industry in the section which it particularly serves, during those fifteen years.

We are proud to say that the demand for Non-Fluid Oil from Southern mills is marching shoulder to shoulder with the annual increase in spindleage in that territory. Apart from the fact that "Savings is Earnings," the mill executive has so many details to attend to which are unavoidable, that it is with a feeling of relief that he sidesteps the worry over oil-stained goods, the power losses caused by oil-soaked belts, and the fire hazard of drip pans and oily floors.

As to improvements in Non-Fluid Oil during the period of Southern Textile Bulletin's ascendancy, we can only say that they have been principally refinements of detail, and in most instances were suggested to us by mill men, to whom we herewith extend our appreciative thanks. In the future, as in the past, we shall endeavor to deserve their interest and good will.

### Greensboro Loom Reed Co. Grows Rapidly

The Greensboro Loom Reed Company announce that they will erect a complete new plant within the next few months. The concern started operations in Greensboro about eighteen months ago. There "Greensboro" reeds are fast gaining

the favor of Carolina mill men and the business has increased to such an extent as to make it necessary to abandon the present location for lack of space. Property on Prescott street has already been purchased and Spoon & Lewis, engineers, are now drawing up plans for a complete factory 40 by 96 feet. Additional machinery will be installed in the new plant which will more than double the present capacity and make the Greensboro Loom Reed Company the best equipped reed plant in the South.

The company also announces that they have just completed installation of wire rolling machinery for the manufacture of oval dent reeds, for the weaving of rayon, cotton, light duck and wool. The oval dent gives approximately 20 per cent more space where the knots first enter the reed, the rounded oval surface of the dent cannot chafe the warp yarns, making this type of reed especially desirable on all weaves where warp breakage is apt to be excessive.

This concern is the only one in the South making the oval dent reed. The oval dent reed for cotton and rayon weaving is made as fine as 44 dents per inch, for wool and light duck up to 22 dents per inch.

### Sweden's Textile Mills.

Sweden has about 200 large and small mills (including spinning, weaving, and knit-goods establishments) employing about 35,000 workers, according to the Swedish Textile Manufacturers' Association.

## Let Us Fix Your Requirements

You are assured of complete satisfaction in all your dealings with us.

The quality of our products and the service we render are alone responsible for our growth. Emmons Quality Loom Harness and Reeds have retained every old customer and gained new customers year after year.

Write us for estimates on your needs

**EMMONS LOOM HARNESS CO., LAWRENCE, MASS.**

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The Largest Manufacturer of Loom Harness and Reeds in America

Southern Representative: GEO. F. BAHAN

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Cotton Harness, Mail Harness, Selv-edge Harness, Reeds, Slasher and Striking Combs, Warper and Liece Reeds, Beamer and Dresser Hecks, Mending Eyes, Jacquard Heddles, Etc.

# EMMONS LOOM HARNESS AND REEDS

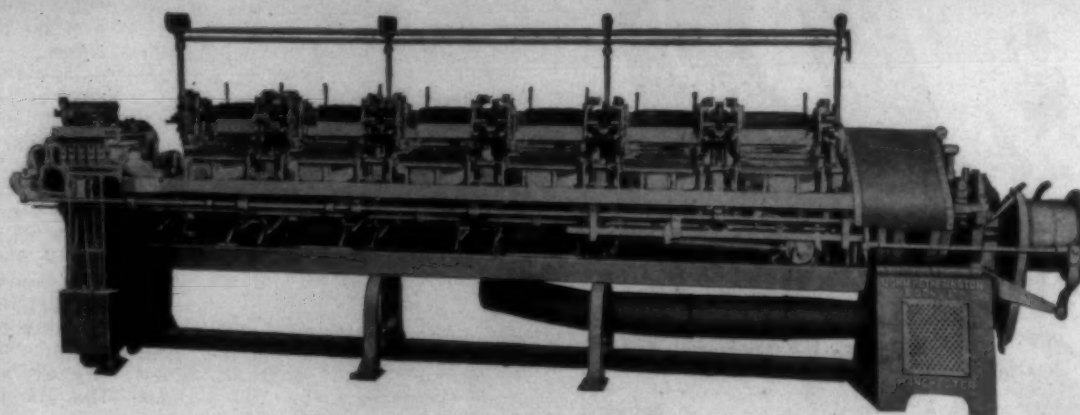


**John Hetherington and Sons, Ltd.**  
*Specialists in Cotton Mill Machinery*  
**Manchester—England**

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will produce from 15 per cent to 18 per cent more than the original machine from the same weight lap and at the same speed.

These models have a greater cleaning power because of readjustments in the top comb, its point and angle of entry and depth of penetration.

The movement of parts has been reduced and other changes have eliminated or cut down the duration of stoppage and made the control of waste more exact.

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## Why Detour With Your Output

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COUNTERS  
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SHIPPING  
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## Sale of Navy Surplus and Surveyed Material By Public Auction

at the  
**NAVY YARD** **CHARLESTON, S. C.**  
at  
**10 A. M.** (Eastern Standard Time) **16 MARCH, 1926**

THE FOLLOWING MATERIAL WILL BE OFFERED:

Located at the Navy Supply Depot, Brooklyn, N. Y.

100,000 pairs (approx.) Trousers, blue worsted.

Located at the Navy Yard, Charleston, S. C.

400,000 pounds (approx.) Ferrous Metals.

49,000 pounds (approx.) Nonferrous Metals.

61,000 pounds (approx.) Railroad Material.

### ALSO

Clothing, including 2,600 pairs White Trousers; electrical Material; Boat and Ship Fittings; Gaskets and Packing; Hand Tools and Hardware; Pipe Fittings and Tubing; Boilers and Machinery; Laundry Equipment;

1 Motor Dory—20' with engine installed.

2 Waleboats—28'.

1 Motor Launch—30' with engine.

2 Steamers—40' (hulls).

1 Steamer—50'.

4 Cutters—28'.

Also many other items.

The auctioneer for this sale will be Eichberg, Rolfes and Company, 333 Star Building, Washington, D. C.

Catalog No. 603-A contains all available details of description, Terms of Sale, etc., and may be obtained about two weeks prior to the date of sale from the Supply Officer, Navy Yard, Charleston, S. C., or the

CENTRAL SALES OFFICE  
Navy Yard, Washington, D. C.

## Southern Company Manufactures Card Clothing

(By a Representative of the Charlotte Manufacturing Company.)

**T**HIRTY years ago, when the Textile Mill Supply Company was incorporated, there was an idea that when a new mill was built, especially a good sized one, the superintendent had to be imported from New England. At the same time, the opinion prevailed that the Southern mills could not make fine yarns or fancy cloths. Both of these ideas were substantially correct at that time, but that time has passed. Now some of the ablest and most successful superintendents in the whole country are Southern men, and Southern mills are making fine yarn and fancy cloths as good as are made anywhere.

In 1911, fifteen years ago, the Charlotte Manufacturing Company was incorporated to manufacture card clothing and reeds. We had no trouble in getting mills to use our reeds, but when it came to card clothing some of the same men who claimed that they could manufacture yarns and cloth as good in every way as New England, hooted at the idea of our doing the same thing with card clothing. They asked the trade to buy their goods

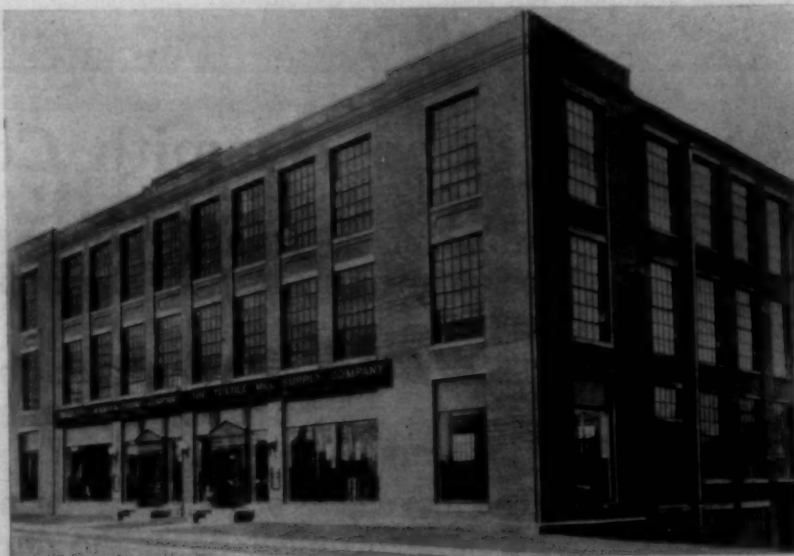
manufactured in the South, but they were not willing to buy the goods we manufactured in the South.

Regardless of advice and obstacles we went right on manufacturing and selling card clothing and reeds, and today, after fifteen years, we have as customers some of the largest and best mills, run by some of the ablest superintendents in the South using our products.

As an evidence of our success, since incorporation, we have increased our facilities ten different times.

To make a full and complete success of the textile industry in the South, everything that goes into the mills, including machinery, must be made in the South.

We firmly believe that day is coming and when it does come, the circle will be complete. Goods made in the South from cotton grown in the South, manufactured by machinery made in the South, kept running by supplies made in the South. Some day we will have it. We are doing our share to bring this about. Are you doing yours?



Home of Charlotte Manufacturing Company.

## S. C. Has Fourth of Textile Counties

South Carolina's importance in the textile world is shown by the fact that of the 57 counties in the United States having 150,000 or more spindles, fourteen of those counties are in the Palmetto State. This information is contained in Bulletin No. 153 of the United States Department of Commerce, copies of which have just been received here.

The further importance of South Carolina as a textile center is emphasized by the fact that it has more counties having more than 150,000 spindle than any other State in the Nation. North Carolina has 12 while Massachusetts, which leads the Na-

tion in the number of spindles, has only seven counties with spindles exceeding 150,000.

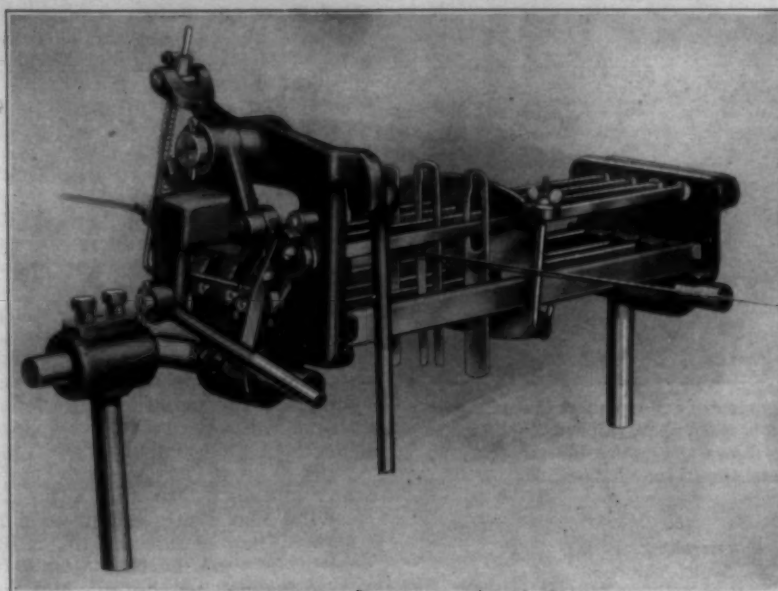
In the number of spindles, the South Carolina counties rank as follows: Spartanburg, 940,516; Greenville, 769,252; Anderson, 598,356; Union, 339,852; York, 264,532; Richland, 251,348; Greenwood, 243,492; Pickens, 227,128; Cherokee, 266,788; Laurens, 215,200; Aiken, 198,656; Newberry, 181,816; Chester, 152,220; Lancaster, 151,768.

The following South Carolina counties have cotton mills with less than 150,000 spindle within their borders: Abbeville, Bamberg, Charleston, Chesterfield, Darlington, Dillon, Edgefield, Fairfield, Kershaw, Lexington, Marion, Marlboro, Oconee and Orangeburg.





## Mechanical Warp Stop Motions



Nearly 15,000 sold during 1925

For:—

COTTON

SILK

WORSTED

RAYON

Protected by patents)

(and other fabrics)

# CROMPTON & KNOWLES LOOM WORKS

WORCESTER, MASS.

PROVIDENCE, R.I.

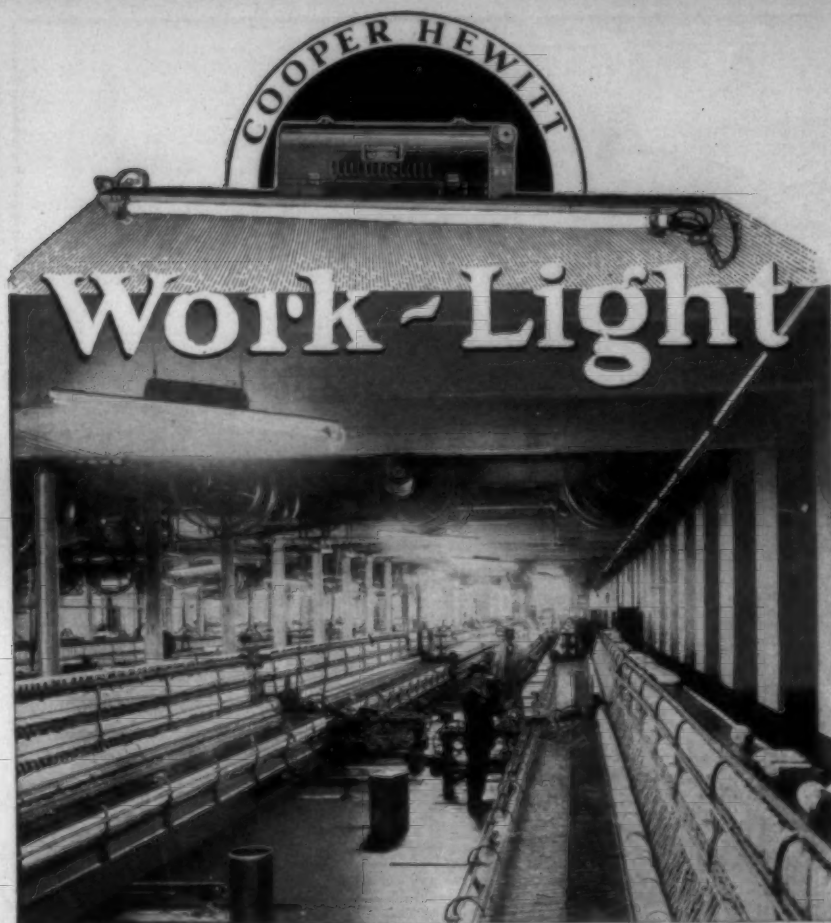
PHILADELPHIA, PA.

PATERSON, N. J.

ALLENTOWN, PA.

S. B. Alexander, Southern Manager, Charlotte, N. C.





Picture shows night view of mule spinners in the Crompton Mills, Crompton, R. I., photographed at night under Work-Light. Notice how clearly threads stand out, and how even is the intensity of the illumination.

## Less eyestrain— better output

**E**YESTRAIN in a textile mill. A bull in a china shop. Both dangerous, both expensive—neither necessary. You wouldn't tolerate the bull—you shouldn't tolerate eyestrain.

Every time you see an operator squinting at a spindle—or a weaver with his nose poked down into his warp—you're looking at waste. It's the waste that comes from eyestrain—waste that's hard to pay for, yet easy to prevent.

The first advantage you notice about Cooper Hewitt Work-Light is freedom from eyestrain. Eye-friendly yellow-green rays. Even diffusion from a 50-inch tube. No glare. No bothersome shadows.

A light so different from others that results must be different. A light whose very difference is the reason it exists. Proven in other mills just like your own. Increases output. Cuts spoilage. Improves quality. Last, but not least, it saves your workmen's vitality because it saves lost motion.

Good reasons. And a lot of them. But none so good as those you'll have once you see Work-Light working. Call on a user—or arrange an early trial in some department of your plant.

COOPER HEWITT  
91 River Street



ELECTRIC COMPANY  
Hoboken, N. J.

118a © C. H. E. Co., 1926

## The Development of Textile Manufacturing in Texas

(Continued from Page 96)

other States and countries by the great opportunities open in Texas.

"In conclusion, I believe the textile industry will eventually become of prime importance in Texas. If all the cotton grown in the State were manufactured in the State it is estimated 1,500 cotton mills of 10,000 spindles each would be kept busy. The payrolls alone from these mills would amount to from \$400,000,000 to \$450,000,000 a year, or nearly half as much as the cotton crop now sells for."

That is the opinion of a mill president in the southern part of Texas. It by no means represents a local condition only. Mill operators throughout the State voice the same opinion. A. Culberson, vice-president of the C. R. Miller Company, which operates mills at Dallas, McKinney and Waco, states:

"Looking back in review of the rapid strides that have been made in cotton manufacturing in Texas during the past ten or fifteen years, it is most interesting to note the very marked advancement that has been made in the general manufacturing conditions.

"Twenty years ago cotton manufacturing in Texas was in its infancy. It was generally thought that the geographical location was against Texas as a manufacturing section. Furthermore, the local operatives were not properly trained and skilled. Texas did not realize what an asset there was in the fact that the best staple cotton, of hard tough fibre, was raised right at her doors. Neither had the wonderful developments of the oil and gas resources progressed to the point where the importance of these very valuable articles of fuel was fully realized.

"After twenty years of steady growth, Texas is just now beginning to realize what these assets really mean in the development of the cotton manufacturing industry. We have now ample native labor that is as well trained and skilled as can be found in the Piedmont section of the Southeast or in the New England section of the North. They are happy and contented with wages in keeping with other skilled labor. The unlimited supplies of fuel oil and gas make the cost of power attracted as compared with other sections of the South and East. The ample transportation facilities and the co-operation on the part of the railroads give Texas a distinct advantage by making it possible economically to distribute its cotton products to the Middle West and the Northwest.

"Texas is just beginning to wake up to the fact that its latent resources are a great asset in the development of the cotton industry. Not only Texas is coming to realize this, but the eyes of the whole country are on Texas; and it is our prediction that Texas is going to share in a very large way in the future development of the industry."

While there are many opportunities in Texas for cotton mills from other States, the people of Texas do not expect those of other States to

do all the cotton mill building. Frequently the statement is heard:

"We cannot expect cotton mills from other States unless we ourselves have sufficient faith in our State to build our own mills."

The cotton producers of Texas are seeing the folly of sending their products to other States to be manufactured into cloth which they, the growers, repurchase, paying not only the transportation charges both ways but a profit to the mills in other States.

As an example of the attitude of Texas toward the establishment of new cotton mills, the mill recently established at New Braunfels was largely financed by the cotton growers themselves. This mill is the only one in the State to manufacture rayon and gingham. During 1923, a period in which the State admittedly was suffering a financial depression, one and one-half million dollars was raised to construct the New Braunfels mill. The success of this mill is certain to stimulate the building of additional plants in the cotton producing and cotton concentrating points of Texas.

Nevertheless, those now engaged in the industry extend a cordial welcome to cotton manufacturers from other parts of the country. They, being on the ground, have a sure knowledge of the prospects of Texas for future development in the industry.

G. C. Dilling, superintendent of the Brazos Valley Cotton Mills at West, Texas, states:

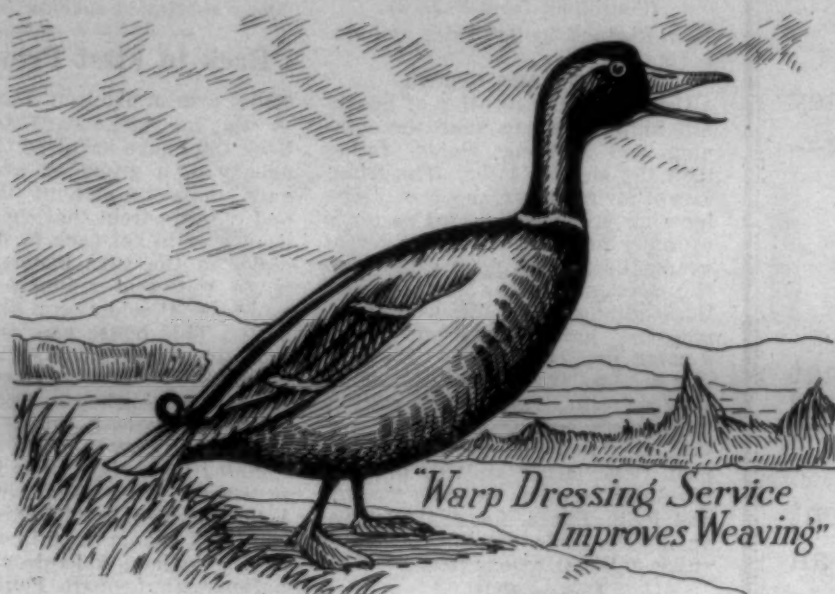
"Texas has the advantage over the New England States as a textile manufacturing State. In the first place, mills located in Texas are in the heart of the cotton producing section of the United States. Most of the cotton manufactured in this State is grown within a few miles of the mills. New England mills must pay heavy freight charges on all the cotton they use. This item alone amounts to thousands of dollars a year."

J. Perry Burrus, of Dallas, who is closely associated with the textile industries of the State, predicts:

"Twenty years hence, Texas should have 200 cotton mills instead of twenty-two. Twenty years from now, Texas should be producing six and one-half million bales of cotton instead of four million bales. Twenty years from now, the cotton crop of Texas should bring a billion five hundred million dollars annually instead of six hundred million. The figures seem dazzling, but if one glances into the true situation and studies the marvelous agricultural industry of Texas, its probabilities and its possibilities which in many ways lie dormant, he will understand that there is nothing startling about the figures."

Mr. Burrus' statement was made in the early part of 1924, at which time there were twenty-two mills in Texas. Today there are twenty-eight. The movement to establish cotton mills in Texas is just beginning to gain momentum. Whether Mr. Burrus' prediction is equalled or excelled it seems certain that the activity of the past seven years indicates a consistent and steady growth in cotton manufacturing in Texas.





Trademark Reg. U. S. Patent Office

# ARCY—

## A Means of Getting The Most Value From a Dollar's Worth of Starch

**A**RCY is a product used in warp sizing and cloth finishing for converting ordinary thick boiling pearl starch into a soluble form, the solutions of which are transparent, and remain fluid at lower temperatures. The active principle of ARCY is of French origin and has been used successfully in Europe for some time, more particularly in France, Germany, and England.

There are many kinds of diastases which convert starch, but which have no value in textile mill use in preparing starch mixes, because they will carry the conversion into sugars, to the utter destruction of the desirable properties of the starch. *ARCY does not contain malt diastase, nor other similar diastases which produce sugars in the size kettle.* Herein lies ARCY'S extreme value to the Textile Trade.

ARCY is not supposed to replace the usual softeners used in the size mix, but when used with ordinary thick boiling pearl starch in the proportion of approximately 4% of the weight of the starch, completely liquefies the starch, producing practically a non-congealing thin size solution, with marked penetrating and binding properties.

### Among the Many Advantages Resulting From the Use of the Less Expensive Thick Boiling Pearl Starch Liquefied With ARCY Are:

*Less shedding* of short fibres, due to the conservation of all binding properties of natural thick boiling starch. ARCY liquefaction of natural starch is *NATURE'S* mild way of producing slow congealing starch solutions, without lessening the original desirable properties created by *nature*. Hence the ability of the dressed warp yarns to withstand the chafing action of the reed without "shedding."

*No lumps* in the size box nor in the pipe lines. Each granule of starch is converted in the cooking kettle into slow congealing liquid.

*Increased tensile strength.* Owing to its greater penetrating power the internal fibres are cemented together, producing a composite thread, reducing stoppage of the loom to a minimum.

*Superior Bleaching* noted at the finishing works, due to the soluble nature of the starch, enhancing kier action, producing better "bottom" and clearer whites.

*Maximum life* to cotton harnesses.

*Smooth finish.* The yarn is smooth and does not have a sawtooth feel, because the starch has been completely liquefied.

*Minimum stoppage of the loom* due to knots breaking the companion thread when weaving. Also the smooth surface of the warp yarns prevent the threads from hanging together in the shed, where the shuttle breaks them.

*Less "net" waste* where the mill desires to take advantage of the possibilities of using starch mixes of greater degrees of concentration.

*Last but not least,* the considerable saving to the mill in the purchase of all starch used.

Manufactured by  
American Rapidase Company, Inc.

Sole Distributors for all Southern States:

# DRAKE CORPORATION

Norfolk Virginia



## WHY?

Why have slippery floors? You know they are dangerous—that they slow up work—that they cost you money.

You also know that as

### WYANDOTTE DETERGENT

has given to hundreds of mills, floors that are clean, sanitary and safe, that it can do the same for you.

Indian in diamond



in every package

be refunded?

Isn't it good judgment then for you to place an order with your supply house with the understanding that these results will follow or your money will

Ask your supply man

The J. B. Ford Co., Sole Mnfrs., Wyandotte, Mich.

*Use*

## DIXON'S

Silica - Graphite PAINT

for the economical protection of all exposed metal or wood work.  
It is known throughout the industrial field as the long service paint—the one that makes frequent repainting unnecessary.  
Write for long service records in your field and Booklet 176-B.  
JOSEPH DIXON CRUCIBLE CO.  
Established 1827 Jersey City, N. J.

## UNIVERSAL WINDING CO.

BOSTON

### Textile Winding Machinery

Southern Offices

Charlotte, N. C.

Frederick Jackson

I. E. Wynne

Atlanta, Ga.

Jesse W. Stribling

Factory Office, Providence, R. I.

## Random Observations— 1911 to 1926

(Continued from Page 34)

New England in both size and importance.

### Knitting Mill Growth.

Ordinarily, the mention of Southern mills brings to mind the spinning and weaving plants, rather than the knitting mills. The latter, except for a few striking exceptions, have never been regarded as being of major importance. Yet in recent years, the South's most active textile development has been in knitting equipment and this part of the industry has become of much greater importance than is generally known. It was formerly almost axiomatic that the smaller knitting mills were rarely successful, but that view must be relegated to the past. The larger knitting mills of the South, such as Durham Hosiery and P. H. Hanes, for example, are among the leaders in their field and enjoy national recognition.

### Unions Fail.

The several attempts, in recent years of the textile unions to become established in the South have been very interesting. These efforts have come at various times, but in at least one respect that have been identical. They all failed.

These unionization movements have come often enough and failed regularly enough to seem to establish one truth. That is that the secret of the excellent labor conditions in Southern mills is in the strong personal relationship existing between the mill owners and their employees. Both are Anglo-Saxon in heritage, ideals and principles. There is a mutual understanding between them that makes for cordial feeling rather than strife. As long as this condition prevails, and it is one of the strongest assets of the Southern mills, there seems little chance that the great body of mill workers will ever be unionized.

### Rayon.

The most recent and most interesting major development in textiles has been the advent of rayon. Artificial silk seemed literally to leap into popularity over night. Beginning with its adoption by a few mills, its use has spread to every corner of the textile field. Southern mills, somewhat slow at first to utilize rayon, are now using it on a tremendous scale. Rayon has undoubtedly been a vital factor in speeding textile diversification in the South. Mills that had for years lacked the final urge to get into new lines found in the new fibre an opportunity, some of them even an excuse, to break away from fixed habits of staple good production. The enormous increase in the consumption of rayon in the South reflects the very important part it is now playing in the industry.

Today, Southern mills, after many ups and downs incident to tremendous expansion, are strongly entrenched in a strategic position. Physically, the plants are the most modern and best equipped in the world. They are in better shape now to meet competition, both in the range and variety of their

products and their ability to market them orderly and effectively than they have ever before. Their continued success is assured.

### Back to First Principles

THE firm of Paulson, Linkroom & Co., Inc., 52 Leonard street, New York City, have acquired the selling agency of a group of well known yarn mills throughout the South and it is apparent that they are endeavoring to get back to first principles in the yarn business. That is, to represent spinners and sell their output solely on a commission basis. This house was one of the original commission yarn houses selling Southern cotton yarns.

It was established in 1865 and has enjoyed a growth which has paralleled the growth of the Southern spinning mills since their inception. In 1865 the firm was known as Dodd & Buckingham. In 1877 Oliver Wendell Buckingham organized the firm of Buckingham & Paulson in association with Leonard Paulson, who came from the old house of John M. Conway.

Mr. Buckingham died in 1902, at which time Courtlandt Linkroom became associated with Mr. Paulson in his stead, supplying the additional capital then required, the firm being known as Paulson, Linkroom & Co.

Leonard C. Linkroom, now treasurer and general manager, also became associated with the present firm in 1902 and served his apprenticeship under Mr. Paulson. At the death of Mr. Paulson in 1915, he assumed the active management of the company and has since carried on the business which has enjoyed a marked growth.

In 1922, when the J. Spencer Turner Company liquidated their business, Paulson, Linkroom & Co., Inc., added to their firm virtually the entire personnel of J. Spencer Turner Company's cotton yarn department, which further expanded the business and placed them in a position where they are considered one of the leading cotton yarn houses.

George C. Buscher, who was one of the men acquired from the organization of J. Spencer Turner & Co., is general sales manager and well suited for this important position, being a practical cotton manufacturer and well known in the textile trade.

The latest acquisition to the business is the rayon department. They are distributors for a well known brand of rayon manufactured in Breda, Holland, known as the Hollandache Kunstzijde Industrie. This rayon is made after the viscose process with the good pulp base. They spin from 100 to 900 denier to meet the requirements of both knitters and weavers, and as rayon is being used so extensively by the textile manufacturers, it is quite fitting that this firm should sell artificial silk in connection with their cotton yarn.

Their headquarters are still on Leonard street, New York City, on which street they have been located since the inception of the business, maintaining branch offices in other important textile centers, with their Southern branch at Charlotte, N. C.



# STAFFORD

## AUTOMATIC LOOMS

The name of Stafford is a familiar one in the annals of textile machinery in America. Long before the days of automatic looms the name was a guarantee of good machinery, honestly built, and today the same holds true to the fullest extent.

The initial efforts of our company were devoted to the development and sale of the shuttle-changing loom with which we built up our reputation for high-grade machinery and efficient service.

Today we build both a shuttle-changing and a bobbin-changing loom, so that we cover the entire field and, as occasion requires, can furnish a loom best suited to the conditions, or as the individual preference of the buyer may dictate.

During the past year we have materially increased our line. We believe that we can now offer to our friends in the trade an absolutely complete and comprehensive line of automatic weaving machinery. With our looms we are prepared to meet practically every weaving condition and fabric requirement.

Let us talk over your weaving problems with you. A copy of our catalog is yours for the asking.

### THE STAFFORD COMPANY



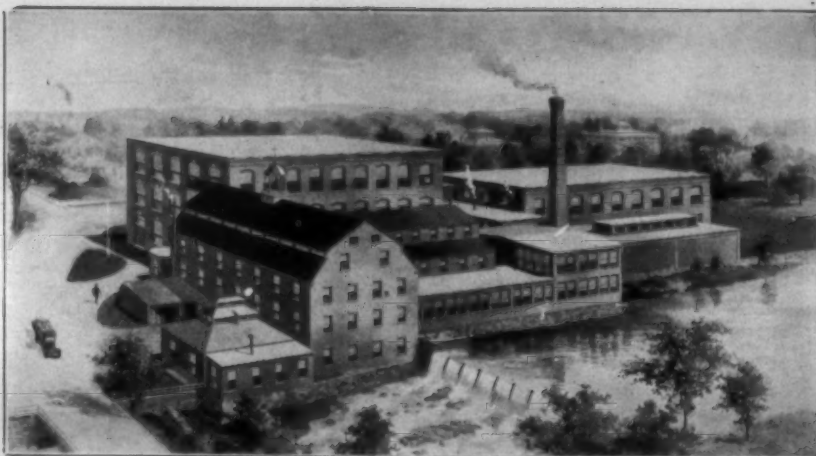
*Weaving Machinery*

READVILLE, MASS.

Southern Agent—FRED H. WHITE, Charlotte, N. C.







IF TRAVELERS  
COULD TALK

WE WOULD NOT  
NEED TO ADVERTISE  
OUR RINGS



WHITINSVILLE SPINNING RING CO.

Whitinsville, Mass.

Southern Agent: W. P. Dutemple

Charlotte, N. C.

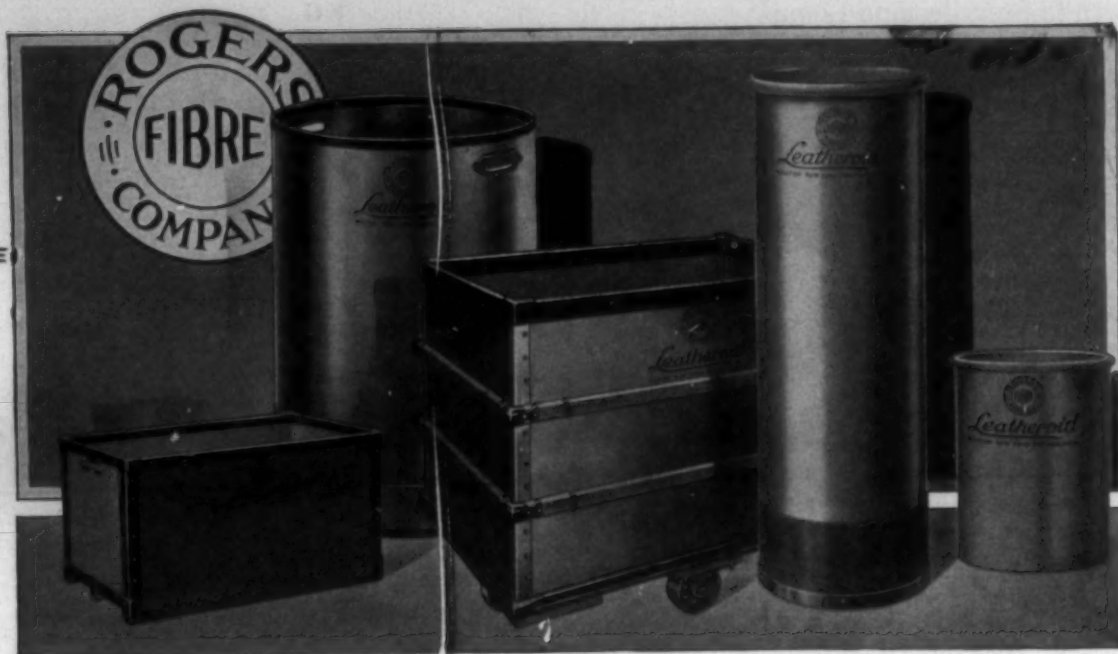
## Growth in Spindles and Looms

(Continued from Page 64)

		Lexington			
		Spindles	Looms	Spindles	Looms
Lexington Mfg. Co. ....	7,104	204	Martel Mills, Inc. ....	20,416	604
Saxe-Gotha Mills .....	10,272	274			
Liberty					
Liberty Cotton Mills .....	11,840	300	Easley Cotton Mills (Nos. 2 and 3) .....	36,264	800
Maplecroft Mills .....	8,172	200			
Lockhart					
Lockhart Mills .....	57,184	1,604	Monarch Mills (Lockhart Plant) .....	57,184	1,700
Lyman					
			Pacific Mills .....	32,000	564
Marion					
Marion Mfg. Co. ....	7,248		Marion Mfg. Co. ....	7,168	
Mayo					
Mary Louise Mills .....	6,144		Mary Louise Mills .....	6,144	
McColl					
Marlboro Cotton Mills .....	31,000		Marlboro Cotton Mills .....	46,000	110
Minter					
			Southern Worsted Corp. ....	6,000	120
Newberry					
Mollohon Mfg. Co. ....	32,164	800	Mollohon Mfg. Co. ....	40,192	1,092
Newberry Cotton Mills .....	40,000	1,212	Newberry Cotton Mills .....	44,000	1,224
			Oakland Cotton Mills .....	26,432	600
Newry					
Courtenay Mfg. Co. ....	25,536	636	Courtenay Mfg. Co. ....	25,344	624
Ninety-Six					
Ninety-Six Cotton Mills .....	23,744	510	Ninety-Six Cotton Mill .....	24,192	567
Orangeburg					
Orange Cotton Mills .....	5,300		Orange Cotton Mills .....	5,000	
Orangeburg Mfg. Co. ....	15,000	400	Santee Mills .....	14,848	392
Pacolet					
Pacolet Mfg. Co. ....	57,088	1,982	Pacolet Mfg. Co. ....	80,152	2,200
Pageland					
			Pageland Cotton Mills .....	6,000	
Pelham					
Pelham Mills .....	10,752		Pelham Mills .....	11,112	
Pelzer					
Pelzer Mfg. Co. ....	135,000	3,100	New Eng.-Sou. Mills .....	136,000	2,800
Pendleton					
Pendleton Cotton Mill .....	10,752		Riverside Mfg. Co., No. 3 .....	10,752	
Pickens					
Pickens Cotton Mills .....	15,000	450	Pickens Cotton Mills .....	23,040	606
Piedmont					
Piedmont Mfg. Co. ....	70,800	1,964	Piedmont Mfg. Co. ....	69,412	1,984
Rock Hill					
Aragon Cotton Mills .....	22,538	560	Aragon-Baldwin Cot. Mills .....	23,552	566
Arcade Cotton Mills .....	18,576	510	Arcade Cotton Mills .....	18,576	452
Highland Park Mfg. Co. ....	8,000	836	Highland Park Mfg. Co., No. 2 .....	16,400	776
Victoria Cotton Mills .....	9,664	330	Victoria Cotton Mills .....	16,952	700
Carhartt-Hamilton Cotton Mills .....	7,488	260	Wymojo Yarn Mills .....	8,568	
Harriss Mfg. Co. ....	1,664		Carhartt Overall Co. ....	13,912	436
Manchester Cotton Mills .....	18,840	300	Helen Yarn Mills .....	3,000	
Wymojo Yarn Mills .....	5,440		Industrial Cot. Mills Co. ....	20,072	1,000
Seneca					
Seneca Cotton Mills .....	19,072	456	Seneca Co. ....	19,840	500
Simpsonville					
Woodside Cot. Mills Co. ....	25,000	600	Woodside Cot. Mills Co. ....	25,088	600
Spartanburg					
Beaumont Mfg. Co. ....	35,520	700	Beaumont Mfg. Co. ....	51,376	1,336
Drayton Mills .....	44,800	902	Drayton Mills .....	44,800	842
Saxon Mills .....	40,320	1,000	Saxon Mills .....	41,216	1,000
Spartan Mills .....	85,000	2,600	Spartan Mills .....	85,000	2,568
Valley Falls Mfg. Co. ....	6,240	176	Martel Mills, Inc. (Valley Mill) .....	12,480	300
			Wadsworth Mills .....	11,392	
Sumter					
			London Mills .....	2,000	131
Tucapau					
Tucapau Mills .....	63,744	1,796	Stark Mills .....	72,000	1,984
Union					
Monarch Cotton Mills .....	41,000	1,000	Monarch Mills .....	103,222	2,365
Ottaray Mills .....	21,632	650	Union-Buffalo Mills Co. ....	89,920	3,132
Union-Buffalo Mills Co. (Union Mills) .....	88,000	2,130	Excelsior Mills .....	10,656	214

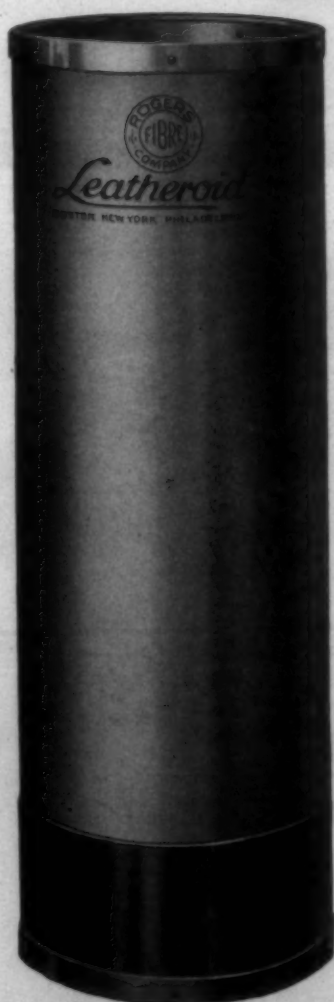
(Continued on Page 110)





# *Leatheroid Receptacles*

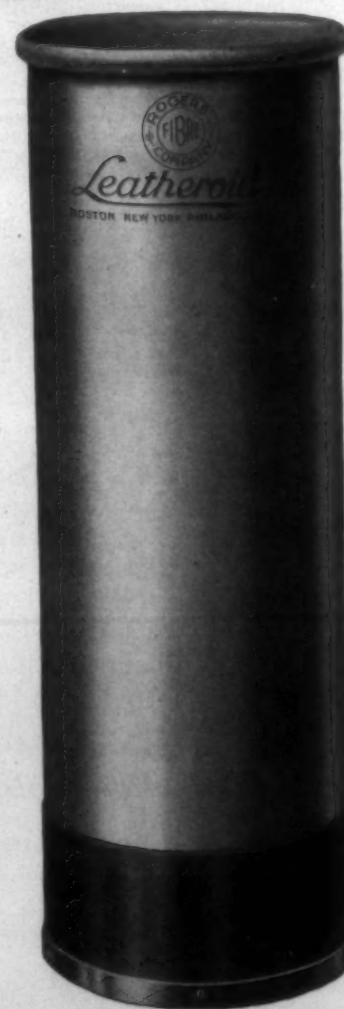
**CANS · CARS · BOXES AND BARRELS**



We make Leatheroid—  
and out of it, we build the  
Leatheroid line of recep-  
tacles.

The success of our busi-  
ness has been made pos-  
sible by the satisfactory  
service these receptacles  
render our customers.

Claims and promises are  
unnecessary in view of a  
record of performances.



## **Rogers Fibre Company**

**BOSTON**  
121 Beach Street

**NEW YORK**  
78 Fifth Avenue

**PHILADELPHIA**  
1024 Filbert Street

**CHARLOTTE, N. C.**  
135 Brevard Court



### Growth in Spindles and Looms

(Continued from Page 108)

1911		1926		1911		1926		
Vaucluse		Vaucluse		Spindles Looms		Spindles Looms		
Spindles Looms		Spindles Looms		Spindles Looms		Spindles Looms		
Graniteville Mfg. Co.	14,368 394	Graniteville Mfg. Co.	14,368 394	Jackson Fibre Co.	56,616 1,570	Bemis Cotton Mill	61,952 1,570	
Walhalla		Walhalla		Chattanooga		Chattanooga		
Walhalla Cotton Mills	18,816 560	Kenneth Cotton Mills	5,000 50	Richmond Spinning Co.	12,000	Richmond Spinning Co.	13,800	
Walterboro		Victor-Monaghan Co.	18,816 1,010	Davenport Silk Mills		Davenport Silk Mills	5,000	
Walterboro Cotton Mills	8,460 272	Walterboro		Dixie Mercerizing Co.		Dixie Mercerizing Co.	18,700	
Ware Shoals		Ware Shoals		Standard-Coosa-Thatcher Co.		Standard-Coosa-Thatcher Co.	60,000	
Ware Shoals Mfg. Co.	52,000 1,415	Ware Shoals Mfg. Co.	70,200 1,907	Columbia		Columbia		
Warrenville		Warrenville		Columbia Cotton Mill Co.	7,500 200	Columbia Cotton Mills	8,000 200	
Warren Mfg. Co.	35,000 1,000	Graniteville Mfg. Co.	36,080 964	Covington		Covington		
Wellford		Wellford		Tipton Cotton Mills	6,448 168	O'Cedar Mills, Inc.	5,000	
Wellford Mfg. Co.	1,152 12	Jackson Mills, No. 2	12,500 300	Elizabethton		Elizabethton		
Westminster		Westminster		Tenn. Line & Twine Co.	1,000	Tenn. Line & Twine Co.	1,500	
Oconee Cotton Mills Co.	13,000 362	The Oconee Mills Co.	13,000 260	Tenn. Cotton Mill Co.	2,000	Englewood		
Whitmire		Whitmire		Eureka Cotton Mills	3,000	Eureka Cotton Mills	5,092	
Glenn-Lowry Mfg. Co.	26,000 900	Aragon-Baldwin Cot. Mills	71,000 1,614	Fayetteville		Fayetteville		
Whitney		Whitney		Elk Cotton Mills Co.	10,000	Elk Cotton Mills	20,000	
Whitney Mfg. Co.	20,572 740	Whitney Mfg. Co.	30,652 850	Harriman		Harriman		
Williamston		Williamston		Harriman Cotton Mill Co.	4,000	Humboldt		
Williamston Mills	32,256 816	Williamston Mills	32,256 750	Humboldt Cotton Mills		8,260 240	Avondale Cotton Mills	9,600 294
Winnsboro		Winnsboro		Huntland		Huntland		
Fairfield Cotton Mills	25,000 500	Winnsboro Mills	77,028 20	Fall Mills Mfg. Co.		804	Johnson City	
Woodruff		Woodruff		Johnson City		Johnson City		
Gray, W. S., Cotton Mills	11,520	Mills Mill, No. 2	20,032	Gloria Textile Corp.			200	
Woodruff Cotton Mills	38,064 919	Woodruff Cotton Mills	44,052 910	Jonesboro		Jonesboro		
York		York		Jonesboro Yarn Mills	3,120	Jonesboro Cotton Yarn Mills	3,400	
Lockmore Cotton Mills	6,400	Lockmore Cotton Mills	6,384	Kingsport		Kingsport		
Neely Mfg. Co.	6,144	Neely Mfg. Co.	6,144	Borden Mills, Inc.		88,648 1,968		
Tavora Cotton Mills	5,004	Tavora Cotton Mills	5,000					
York Cotton Mills	14,096 160	Cannon Mfg. Co.	15,672 466					
Total	4,214,680 103,669	Total	5,369,201 128,203					



1911				1926			
Knoxville		Spindles Looms		Knoxville		Spindles Looms	
Brookside Mills	52,000	1,298		Brookside Mills	82,408	2,905	
Knoxville Cotton Mills	27,648			Knoxville Cotton Mills	30,250		
				Appalachian Mills Co.	40,000		
				Cherokee Spinning Co.	15,120	252	
				Standard Knitting Mills	18,000		
Lenoir City				C. H. Bacon Co.			
					6,000		
Memphis				McCallum & Robinson, Co.			
					544		
				Chicasaw Thread Co.	2,000		
Nashville				Warioto Cotton Mills			
Warioto Cotton Mills	25,312	675		Warioto Cotton Mills	32,204	729	
Pinewood				Pinewood Cotton Mill			
Pinewood Cotton Mill	2,580	44					
Prendergast				Southern Cot. Mills Co.			
					20,160		
Rockford				Rockford Mfg. Co.			
					4,000		
Shelbyville				Shelbyville Mills, Inc.			
Sylvan Cotton Mills	3,360	110		Shelbyville Mills, Inc.	14,008	223	
Tellico Plains				Tellico Cot. Mills Co.			
					2,016		
Trenton				Trenton Cotton Mills			
Trenton Cotton Mills	4,900			Trenton Textile Mills	6,600		
Total	230,548	4,305		Total	574,002	8,331	
TEXAS				Belton			
Belton		Belton Cotton Mills		Belton Yarn Mills		11,932	
Belton Cotton Mills	7,500						
Bonham				Bonham Cotton Mill Co.			
Bonham Cotton Mill Co.	15,000	432		Consolidated Tex. Corp.	16,200	433	
Brenham				Brenham Cotton Mills			
Brenham Cotton Mills	5,600	171		South Texas Cot. Mills	6,504	200	
Celeste				Perrin Cotton Mills			
Perrin Cotton Mills	5,000						
Corsicana				Corsicana Cotton Mills			
Corsicana Cotton Mills	5,000	150		Corsicana Cotton Mills	15,500	281	
Cuero				Guadalupe Valley Cot. Mills			
Guadalupe Valley Cot. Mills	8,000	160		Guadalupe Val. Cot. Mills	8,300	208	
Dallas				Dallas Cotton Mills			
Dallas Cotton Mills	12,000	360		Dallas Cotton Mills Co.	16,228	334	
				C. R. Miller Mfg. Co.	10,050	240	
Denison				Denison Cotton Mill Co.			
Denison Cotton Mill Co.	12,144	270		Denison Cotton Mills So.	16,000	372	
El Paso				El Paso Cotton Mill Co.			
El Paso Cotton Mill Co.					5,016	172	
Fort Worth				Worth Mills			
					16,000	8	
Gonzales				Gonzales Cotton Mill Co.			
Gonzales Cotton Mill Co.	5,000	150		Gonzales Cot. Mill Co.	6,800	210	
Hillsboro				Hillsboro Cotton Mills			
Hillsboro Cotton Mills	2,500	80		Hillsboro Cotton Mills	6,500	180	
Houston				Houston Cot. & Twine Mills, Inc.			
					6,640		
				Houston Textile Mills	4,000	100	
Itasca				Itasca Cotton Mfg. Co.			
Itasca Cotton Mfg. Co.	6,500	200		Itasca Cotton Mfg. Co.	12,000	315	
Kingville				San Antonio Cotton Mills			
					2,448		
Marble Falls				Marble Falls Cotton Mill			
Marble Falls Cotton Mill		400					
McKinney				C. R. Miller Mfg. Co.			
Texas Cotton Mill Co.	5,120	160		C. R. Miller Mfg. Co.	11,073	746	
Mexico				Mexico Textile Mills			
					5,000	123	

1911				1926			
		New Braunfels					
		Spindles	Looms			Spindles	Looms
				Planters & Merchants Mills, Inc.	10,000	300	
				Post City			
				Postex Cotton Mills	11,520	296	
				San Antonio			
				Adams Cotton Mills	9,984	373	
				San Antonio Cotton Mills	3,400	60	
				Sherman			
Sherman Mfg. Co.	10,000	188		Sherman Mfg. Co.	7,956	228	
				Waco			
				C. R. Miller Mfg. Co.	8,600	320	
				Waco Twine Mills	3,536		
				Waxahachie			
Waxahachie Cot. Mills	10,000	130		Waxahachie Cotton Mills	10,000	248	
				West			
Brazos Valley Cot. Mills	6,240	210		Brazos Valley Cot. Mills	6,240	220	
Total	115,604	3,111		Total	247,427	6,032	
VIRGINIA							
Alta Vista							
				Alta Vista Cotton Mills	26,460	604	
Danville							
Riverside & Dan River Cotton Mills	250,000	7,360		Riverside & Dan River Cotton Mills	467,440	13,530	
				Dan City Silk Mills		120	
Emporia							
Meherrin Cotton Mills Co.	1,920						
Fieldale							
				Fieldale Mills	19,632	892	
Fries							
Washington Mills	50,000	1,500		Washington Mills Co.	77,000	1,750	
Lynchburg							
Lynchburg Cot. Mill Co.	50,000	1,417		Consolidated Tex. Corp.	56,796	1,578	
Martinsville							
Martinsville Cot. Mill Co.	18,000	450		Martinsville Cot. Mill Co.	17,920	441	
Matoaca							
Va. Con. Milling Co.	9,400	54		Matoaca Cot. Mills Co.	9,400	54	
Petersburg							
Chesterfield Mfg. Co.	6,000			Chesterfield Mfg. Co.	6,000		
Va. Con. Milling Co.	7,072	186		Pocahontas Cotton Mills	7,072	186	
Roanoke							
Twine Mill Corp.	4,032			Morice Twine Mills Corp.	9,378		
South Boston							
Century Cotton Mills	8,068			Halifax Cotton Mills	12,000	300	
Stuart							
				Stuart Mills, Inc.		12	
Total	404,492	10,967		Total	709,098	19,470	

## GROWTH IN SPINDLES BY STATES

1911				1926			
Alabama	975,519	16,913		Alabama	1,477,860	26,741	
Arkansas	14,090	164		Arkansas	29,000	150	
Georgia	2,030,594	40,864		Georgia	2,937,330	53,041	
Kentucky	98,856	1,445		Kentucky	99,512	1,444	
Louisiana	87,088	1,916		Louisiana	103,184	2,300	
Mississippi	182,360	4,728		Mississippi	185,912	4,809	
North Carolina	3,386,548	59,433		North Carolina	6,106,779	90,617	
Oklahoma	6,000			Oklahoma	39,912	508	
South Carolina	4,214,680	103,699		South Carolina	5,369,201	128,203	
Tennessee	230,548	4,305		Tennessee	574,002	8,331	
Texas	115,604	3,111		Texas	274,427	6,032	
Virginia	404,492	10,967		Virginia	709,098	19,470	
Total	11,746,379	247,545		Total	17,720,305	341,646	

## DIXON LUBRICATING SADDLE CO.



Use Dixon Patent Stirrup Adjusting Saddles, the latest invention in Saddles for Top Rolls of Spinning Machines. Manufacturers of all kinds of Saddles, Stirrups and Levers.

WRITE FOR SAMPLES  
BRISTOL, RHODE ISLAND



## Death of Richard E. Reeves

Richard E. Reeves, president of the Hunter Manufacturing and Commission Company, New York and one of the best known textile men in America died last Saturday afternoon at his home in Summit, New Jersey.

Funeral services were held Monday afternoon at the First Methodist church in Summit, N. J., where the deceased made his home for the past 12 years. Dr. Lamdin, Mr. Reeves' pastor, conducted the services there and accompanied the body to Mount Airy, N. C., where he was assisted by Dr. Sloan, of Greenville, S. C., in the burial service. Hundreds of friends attended the service and many of the textile firms in New York closed in respect to Mr. Reeves.

Burial services were held Tuesday afternoon at the Oakdale cemetery in Mount Airy. The funeral party was composed of immediate relatives and several business associates of Mr. Reeves.

Mr. Reeves' death, which followed complications after a severe attack of influenza, was unexpected, and a distinct shock to those who had learned of what had happened. Mr. Reeves had not been at his office since the end of January, but had been progressing sufficiently to warrant the hope that he might return to the market in three or four weeks.

Mr. Reeves was born on Sept. 24, 1875, at Sylva, N. C. He attended school at Oak Ridge, and there attracted the fancy of his teachers, who recommended him to J. S. Hunter, founder of the Hunter Mfg. & Commission Co.

The day after leaving school, Mr. Reeves started with Mr. Hunter as a clerk, and it was with the organization started by Mr. Hunter that R. E. Reeves remained up to the time of his death. The Hunter business had been going only about a year, in Greensboro, N. C., when Mr. Reeves joined it in 1879. It was not a significant move, apparently, as the house was selling somewhat under \$50,000 worth of merchandise a year. The Hunter company then represented the Mt. Pleasant Plaid Mill, the Walton Mill, making 3.00 yard denims (not indigo) the Victory, Sandford and Columbia Mills.

Mr. Reeves came to New York in 1901 to take charge of the office here, which had been opened the year before by J. C. Watkins, who wanted to return to the South. Mr. Reeves had been head bookkeeper, and had made one trip on the road, selling, when he was asked to assume the duties in New York. By this time the Hunter business had grown to an aggregate of not quite \$1,000,000 a year. Today, the annual sales of the house run somewhat over \$100,000,000.

A few years after R. E. Reeves came to New York, Mr. Hunter died, and he became active head of the business, although, for some years R. G. Vaughan, of Greensboro, was nominally the president.

The growth of the Hunter Mfg. & Commission Co. under the direction of Mr. Reeves is one of the marvels of industry, and is undoubtedly the outstanding development in the progress of the cotton goods business. From such meager beginnings, it broadened out to a representation of approximately 2,000,000 spindles, merchandising fully one-fifth of the cloth production of the South.

About the first of 1914, the main office of the Hunter company was moved to New York, from Greensboro.

Mr. Reeves was a former president of the Association of Cotton Textile Merchants of New York; a member of the Merchants Club, and a member of Baltusrol Country Club. He was also one of the leading members of the Canoe Brook Country Club, of Summit, N. J. R. E. Reeves was prominent in Y. M. C. A. work to which he had given much attention.

In April, 1903, Mr. Reeves married Susan Graham, daughter of the late C. E. Graham, and sister of Allen Graham, of Greenville, S. C.

He is survived by his widow and three children: Richard E., Jr., the oldest, who is attending Hotchkiss School at Lakeville, Conn., preparing for college; Charles Graham, and Susan, named after her mother.

Five brothers and a sister also survive Mr. Reeves. The brothers are:

M. R. and John, of Reeves Bros.; Marvin and Charles, of Sanford, N. C., and Jerry, who has written some books of a religious character. One of the books of Jerry Reeves, a treatise on old time hymns, was dedicated to R. E.

### New Draper Plant.

Crampton, N. H.—Operations in the large \$500,000 bobbin plant of the Draper Corporation, of Hopedale, Mass., will be started around the first of April, it was stated at the company's office in this town.

The large brick building which is now being built is nearing completion and the various units which will be used in the making of bobbins and wooden cases will be finished in the near future.

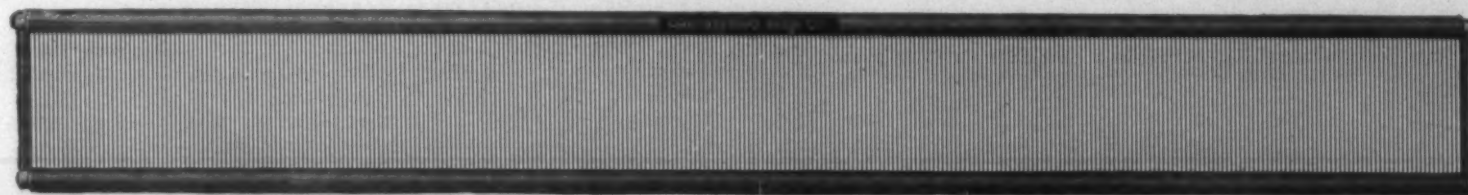
The Draper Corporation will erect as soon as possible, a large number of houses for employes and it was said at the office of the corporation that at least 50 will be put up immediately.

This is one of the largest projects ever undertaken in this part of the State, which is known as the Beebe river section.

Several months ago, the Draper concern purchased a large tract of woodland from Parker Young Co. located in the Beebe river valley. On this tract there are millions of feet of hard wood, which will be used in making bobbins used in the various types of mill machinery. Employment will be given to at least 500.

# Loom Reeds

## Of Every Description



### Finest Quality---Prompt Service

# Greensboro Loom Reed Co.

Greensboro, N. C.

Leno Reeds  
Lase Reeds  
Warper Reeds  
Soldered Reeds of  
Every Description  
Beamer Hecks  
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SPINNING and TWISTING

TRAVELERS

OF EVERY DESCRIPTION

THE BOWEN  
ROUND POINTED TRAVELERS

THE BOWEN  
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THE BOWEN SUPERIOR  
BRONZE TWISTERS

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UNIVERSAL STANDARD  
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UNIFORM TEMPER  
CORRECT CIRCLES

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Southern Representative:

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Practical  
Brush**



Do you know how the natives of the South Sea Islands walk when they are picking long staple cotton?

Neither do we.

And the funny part of it is, neither one of us cares. Just so long as the long staple cotton comes up to specifications.

We believe you're far too busy to read a long advertisement about how brushes are made, how one fibre is better than another, how one kind of horsehair comes from Chinese horses, and one kind from Siberian ponies.

But we know you are interested in Brush quality and service.

We make every type of brush the cotton mill uses.

Make them in a big, new modern factory.

Make them with the latest machinery in big volume production.

Make them with the best material money will buy.

Make them good, and make good by guaranteeing them absolutely, positively, and any other way you can think of; set a fair margin of profit on them, and then market them.

**ATLANTA BRUSH CO.**  
ATLANTA, GA.

**Guaranteed  
Textile  
Brushes**

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*"The Warps Best Friend"*

**Moreland Sizing Company**

Established 1908

Office: 206 Andrews Low Bldg.

Spartanburg, S. C.

S. C. THOMAS & J. T. MORELAND, Owners

## Clark's Annual Knitting Machine Increase List

(Continued from Page 23)

Name of Mill.	Knitting Machines
C. H. Bacon Mfg. Co., Cleveland	100
Richmond Hosiery Mill, Graysville	50
Harriman Hosiery Mills, Harriman	134
Priester Hosiery Mills, Jackson	14
Campbell Knitting Mills, Jellico	80
Appalachian Mills, Knoxville	25
Ashe Hosiery Mills, Knoxville	45
Read Hosiery Mills, McMinnville	25
Sunshine Hosiery Mills, Murfreesboro	295
Washington Hosiery Mills, Nashville	25
Newport Knitting Mill, Newport	10
Philadelphia Hosiery Mills, Philadelphia	15
Pikeville Hosiery Mills, Pikeville	10
Rockwood Mills, Rockwood	19
Robinson-McGill Mfg. Co., Rockwood	5
*Soddy Hosiery Mills, Soddy	225
<b>Total</b>	<b>1,323</b>
<b>Texas.</b>	
*Dixie Hosiery Mill, Fort Worth	25
*Houston Hosiery Mills, Houston	25
*Pool Knitting Mill, Sherman	25
<b>Total</b>	<b>75</b>
<b>Virginia.</b>	
Grey Hosiery Mills, Bristol	38
Danville Knitting Mills, Danville	200
Galax Knitting Mills, Galax	50
Lynchburg Hosiery Mills, Lynchburg	25
*Pannill Knitting Co., Martinsville	17
Paul Knitting Mills, Pulaski	120
*Roanoke Knitting Co., Roanoke	27
*French Fashions, Inc., Staunton	50
<b>Total</b>	<b>527</b>
<b>Summary By States.</b>	
Alabama	591
Georgia	513
Kentucky	124
Louisiana	48
North Carolina	2,219
South Carolina	363
Tennessee	1,323
Texas	75
Virginia	527
<b>Total Knitting Machines Installed in 1925</b>	<b>5,783</b>

\*Indicates new mills.

## Capital Stock of Southern Mills

The capital stock of Southern Textile Corporations which report capital stock is as follows:

Alabama	\$ 30,760,000
Arkansas	663,400
Georgia	87,193,000
Kentucky	2,438,000
Louisiana	4,555,000
Mississippi	3,265,000
North Carolina	215,692,270
Oklahoma	370,000
South Carolina	135,707,747
Tennessee	28,512,500
Texas	17,803,000
Virginia	24,319,500
<b>Total</b>	<b>\$551,279,417</b>

On account of the fact that many mills do not report their capital stock, the amount invested in Southern mills is considerably in excess of the total given above.



# YOUR MOST SATISFACTORY DE-SIZING AGENT

Those mills which are using Diastafor regularly are acclaiming it as the safest, most reliable, easiest-to-use de-sizing agent on the market today.

Here are the reasons why:

1. Diastafor was the first product put on the market which used the action of diastase on starch as a means of stripping the warp.
2. It is produced by an organization who are pioneers in the malting field and who have had years of experience in controlling the diastatic content of the malt syrup.
3. Laboratory tests insure a uniform product. You can rely upon its work and standardize its results.
4. Diastafor is easy to use. Its diastatic content converts the starch into sugar which is easily washed out.
5. It is easily adaptable to whatever equipment you now have and can be used in connection with cotton, worsted or mixed fabrics.
6. Diastafor is available to any mill anywhere. Warehouses are conveniently located within quick shipping distance of you, thus insuring a steady supply—for instance, there are warehouses at Charlotte, N. C., and Cincinnati, O.

Write for particulars about the use of Diastafor in your own mill.

A technical representative is at your service.

## DIASTAFOR

### THE FLEISCHMANN COMPANY

*Diastafor Department*

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### Page Fence—permanent, good-looking, and at less cost

Here's lasting protection for your property—PAGE Fence is strong, durable — galvanized after weaving with almost 5 times the weight of zinc on ordinary fence wire.

And it's easily erected—your own workmen can do the job, with one of our trained foremen to direct them, or we'll build the

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**GENERAL EQUIPMENT  
COMPANY**

Charlotte, N. C.

**PAGE PROTECTION  
FENCE .....**



## The Superiority of ALUMINUM PAINT

for the interior walls, ceilings, roofs, tanks, towers and fences of industrial plants has been proven and today many of the larger textile mills of the South are specifying it for these purposes.

To mention only one feature, Aluminum Paint gives to mill walls the same light refraction that two coats of the so-called mill whites or mill enamels give them, and at the same time diffuses a soft, pleasant light, easy on the eye, and is never trying on the workers' dispositions.

Aluminum Paint can be applied with either a brush or gun.

It must be borne in mind, however, that to obtain the best results

## "WATCO 787"

### Aluminum Mixing Varnish

is the vehicle that should at all times be used.

Tests made during the past few years by the largest users of Aluminum Paint have proven conclusively that the vehicle should be one that is water-resisting, and should be a varnish that would show no whitening after the most severe water tests. In these tests, where several varnishes were used, "Watco 787" Aluminum Mixing Varnish has stood out superior to all others.

Information that will help you on your next paint job will be gladly sent on request.

**Wm. Waterall & Co., Inc.**

Industrial Paint and Varnish Specialists

C01-602 Manhattan Bldg.

Philadelphia, Pa.

## Alkali and Bleach in Southern Mills

By E. E. Routh, Southern Sales Manager, The Mathieson Alkali Works, Inc.

**D**URING the past half-dozen years many important developments have taken place in the methods of using alkali and bleach among the textile mills of the South. These developments are of particular interest to progressive mill men because of the substantial economies in operation and improvements in textile processing which have accompanied them.

Under the general term alkali are included caustic soda, soda ash, bicarbonate of soda and the various prepared mixtures of these three basic commodities. The term bleach as used here includes bleaching powder and liquid chlorine.

### Liquid Chlorine Replaces Bleaching Powder.

Probably the change that has affected the greatest number of mills has been the replacement of bleaching powder by liquid chlorine. Only a few years ago bleaching powder was used universally where a chlorine bleach was desired and liquid chlorine was almost unknown. Then the Southern district office of the Mathieson Alkali Works was opened at Charlotte in 1920, there were only twelve mills in the entire South using liquid chlorine. Due largely to the progressive activities of the Mathieson organization in pointing out the advantages and superiority of liquid chlorine, all but two or three mills have now changed over from bleaching powder.

Most textile men are familiar with the numerous factors influencing this replacement, such as the unstable character of bleaching powder, particularly in warm weather, the difficulty of storing it any length of time without deterioration and loss, the large storage space required because of its bulk, the disagreeable features attending its use, the payment of freight charges on lime that has no bleaching capacity, etc. The fact that liquid chlorine possessed none of these objectionable features and in addition produced a superior bleach, made the change entirely logical and sound.

While the consumer's problem in switching from bleaching powder to liquid chlorine was comparatively simple and involved little or no expense, it was necessary for the manufacturer to scrap his expensive lead-lined bleach chambers and invest large sums of money in plants for liquefying the chlorine gas that formerly went to make bleach. It was also necessary for him to invest in high-priced equipment such as cylinders, ton containers and tank cars, in order to insure the safe transportation of the liquefied chlorine gas. Through the co-operation of producers, railroad and government officials, these developments were worked out along sound lines and to the best interests of industry as a whole.

In 1918, the liquid chlorine capacity of this country was about 7,900 tons per year (equivalent to approximately 23,700 tons of bleaching powder), the large percentage of chlorine gas then going to make bleaching powder. On January 1,

1924, the liquid chlorine capacity of the country was approximately 33,000 tons per year (equivalent to about 99,000 tons of bleaching powder), which shows the rapidly increasing consumption of liquid chlorine in replacing bleaching powder. The Niagara Falls plant of the Mathieson Alkali Works is the largest producer of liquid chlorine in the world, producing over 18,000 tons per year.

### Transportation of Liquid Chlorine.

This large scale production naturally brought up the important question of safe transportation. The development of efficient equipment for this purpose has been one of the chief factors in the enormous expansion in the consumption of liquid chlorine within a comparatively few years. Cylinders containing 100 and 150 pounds soon proved inadequate and uneconomical for larger consumers and tank cars carrying fifteen tons in a single container were developed. Then an intermediate unit, the one-ton container, was introduced and finally the Mathieson multiple-unit tank car, carrying fifteen of these one-ton containers, was placed in service early in 1921.

The advent of the tank car for liquid chlorine transportation effected a substantial saving in freight charges to consumers, due to the fact that charges were no longer assessed on the weight of the containers as in the case of cylinder shipments. The multiple-unit tank car possesses additional advantages over the single-unit car, in that it offers a more flexible type of equipment for both shipper and consumer, permitting the maintenance of shipping and storage reserves, and provides a convenient unit of liquid chlorine in a container which can be accurately weighed and frequently inspected.

For several years after the multiple-unit car was placed in service, the Mathieson Company was forced to contest at enormous expense, the question of whether this special car was to receive tank car rates and privileges the same as the single unit tank car. During this period, freight charges were assessed on the weight of the one-ton containers both going and returning and were paid by the manufacturer until a ruling of the Interstate Commerce Commission placed the multiple-unit car on a permanent tank car basis and ordered the refund of all excess freight charges previously paid by the Mathieson Company.

While this decision was of particular importance to consumers in the paper industry, many other users of chlorine have recognized the advantages of this type of equipment and are now taking shipments in multiple-unit tank cars. Among these are a number of textile bleachers, including six of the leading Southern mills, together with chemical manufacturers, petroleum refiners, municipal water works and others. Today the Mathieson Company owns and operates 120 of the special tank cars required for transporting liquid chlorine, 75 of the multiple-unit type and 45 of the



Class V or single-unit type, in addition to its equipment of many thousands of the two sizes of chlorine cylinders.

#### Liquid Caustic Soda.

Another interesting development within the past two years is the increasing use of liquid caustic soda in tank cars by large consumers in place of the solid form in drums. The Southern sales organization of this company has been active in pointing out to the larger textile mills the economy and convenience of handling caustic soda in liquid form and by this progressive policy has rendered a genuine service to the industry.

As most consumers know, caustic soda, when first manufactured, consists of a solution containing 75 per cent or more of water. In order to produce solid caustic, this large proportion of water must be drawn off by evaporation, which requires the consumption of a large amount of fuel. When all the water has been removed, the caustic is in a molten state and is then poured into drums to cool and solidify. The various steps in evaporating of the liquor, filling the drums and handling and loading them for shipment, all involve labor expense which must be charged to the cost of production of the solid material.

At the consumer's plant the whole process is then reversed. The drums must be unloaded, handled and cut open to remove the solid caustic. It is then dissolved—a disagreeable operation at best—and made once more into a water solution before it can be used. The labor involved must again be charged to operating costs, together with the expense of disposing of the worthless empty drums.

Obviously an unnecessary waste occurs when solid caustic is used by a mill that consumes in large enough quantities to purchase liquid caustic in tank cars and enjoys also siding facilities and a favorable freight rate from a source of supply. Caustic soda in liquid form is furnished from both Mathieson plants at Saltville, Va., and Niagara Falls, N. Y., in a 50 per cent solution containing equal parts of water and solid caustic soda. Tank cars carry approximately 8,000 gallons of this solution, of which one-half by weight is solid caustic soda.

Since liquid caustic contains 50 per cent of water, freight rates are an important factor in determining the extent of the economy it will effect in any given mill. The location of the Mathieson plant at Saltville, Va., is so advantageous for most points in the Southern States that a favorable freight rate is usually obtained to consuming centers. The manufacturer's saving in production costs is of course reflected in a lower price per hundred pounds on caustic soda in liquid form.

#### Straight Alkalies in Textile Processing.

Due to the results of various investigation carried out by disinterested organizations and to the construction work of the manufacturer, alkali is now being used in Southern textile mills far more economically and with greater certainty of uniform results than ever before. For-

merly a great many prepared alkali mixtures were used whose composition were either unknown or uncertain. If a change from one brand to another were made or if the mixture were to deteriorate through long storage, the processor might find himself in difficulties and be at a loss as to what must be done to correct the condition, being perhaps in doubt as to the exact composition of his alkali.

For this reason, many progressive mills have eliminated all uncertainty by using only straight caustic soda or straight soda ash in their processing operations. In cases where certain definite mixtures of alkalies have been found to produce uniformly the desired results, some mills purchase caustic soda, soda ash and prepare their solutions by dissolving the required proportions of these standard alkalies. In most cases, however, straight soda ash or straight soda will produce the desired results if used in proper quantity, which is often half the amount formerly required with a prepared alkali mixture.

In kier-boiling, bleaching, dyeing, and other operations using alkali, causing soda or soda ash used alone and in the proper quantity will not effect a very substantial saving, but result in a better and more uniform product. The reason lies in the fact that these alkalies are standard basic commodities and have a definite known composition which is uniform at all times. Being standard commodities, they are subject to the of supply and demand, their cost is lower and their fair market value is easily determined at any given time.

The Mathieson organization includes a competent technical staff which is at the service of the textile industry and whose efforts are directed towards constructive development in the use of alkali and bleach. The Southern District office at Charlotte was established with the particular view of better serving the textile mills in the South. Prompt service is assured, either direct from the Saltville plant or from warehouse stocks located in Charlotte, Jacksonville, Chattanooga, New Orleans, Dallas, Houston and San Antonio.

#### The Netherlands Cotton Trade

The Netherlands cotton textile mills are generally supplied with sufficient export orders to keep them running, despite the increasing Japanese competition which they are encountering in Far Eastern market.

#### East Indies Goods Market.

Imports of cotton piece goods into Java and Madura during 1925 exceeded those for 1924 by 20,000,000 guilders (\$8,000,000). The Japanese demand for textiles is less active and stocks are heavy owing to the increase in imports and the curtailment of native buying power. Some interests, however, expect a gradual improvement in native demand and a possible shortage of goods about May or June because forward contracts are few and early deliveries would be difficult.



### How White are Ice Cream Pants?

The soft gleaming white of goods bleached with Solozone

(A permanent white without weakening, soft, odorless and elastic)

The ROESSLER & HASSLACHER CHEMICAL CO.  
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## Plan Before Planting

Attractive home grounds are the result of well-considered effort. Trees and shrubs selected haphazard and hurriedly, or bought in generalized collections, never produce the satisfactory effects achieved by a well-thought-out planting plan.

### Careful Planning Pays

Our skilled Service Department can achieve more permanent beauty with a few well-grown, well-selected plants than unskillful persons with twice as many; both labor and material costs are saved.

Our guarantee to replace at the nursery, the trees that die within a year protects the investment. Our stock gives satisfaction.

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Nurserymen—Landscape Gardeners  
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## SALT CRYSTALS

**L**IKE successful men International Salt has quality to help it rise in the world.

Arriving from the International mines it goes through a disciplining in our perfectly equipped refineries. Nothing is left but the strength.

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Roy Roller Cotton Card Grinder

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Complete information gladly sent to you upon request.

E. M. Terryberry, Southern Agent  
126 Healey Bldg., Atlanta, Ga.

1911

## Growth of Knitting Mills

1926

(Continued from Page 32)

Name of Mill	No. of Machines	Name of Mill	No. of Machines
1911		1926	
		<b>Icard</b>	
		Frazier Hosiery Mills	100
		<b>Kernersville</b>	
American Hosiery Mills	350	American Hosiery Mills Co.	300
Davis-Crews Knitting Mill, The	20	Kernersville Knitting Co.	150
Lowrey Hosiery Mills	20	Vance Knitting Co.	140
Victor Hosiery Mills	63		
		<b>Kinston</b>	
Orion Knitting Mills	140	Kinston Knitting Co.	304
		<b>Lenoir</b>	
		Hickory Hosiery Mills	50
		<b>Lexington</b>	
		Shoaf-Sink Hosiery Mills	91
		<b>Littleton</b>	
Littleton Hosiery Mills	100		
		<b>Marion</b>	
Marion Knitting Mill (Inc.)	50	Marion Knitting Mills, Inc.	75
Mt. Ida Hosiery Mill Co.	50	Elizabeth James Mills	117
		<b>Mayodan</b>	
		Washington Mills Co.	58
		<b>Mebane</b>	
		Durham Hosiery Mills	320
		<b>Mocksville</b>	
		Sanford Knitting Mills	20
		<b>Monroe</b>	
		Icemorlee Cotton Mills, Inc.	22
		<b>Morganton</b>	
		Garrou Knitting Mills	150
		<b>Morrisville</b>	
Morrisville Hosiery Mill	40	Morrisville Hosiery Mill	80
		<b>Mt. Airy</b>	
		Renfro Hosiery Mills	194
		<b>Mt. Pleasant</b>	
James Knitting Mills	24		
		<b>Murphy</b>	
		Oak Lane Knitting Mill, Inc.	66
		<b>Newton</b>	
Fidelity Hosiery Mills (Inc.)	200	Fidelity Hosiery Mills Co.	200
		J. R. G. Hosiery Mill	20
		Ridgeview Hosiery Mill Co.	305
		<b>North Wilkesboro</b>	
		Brame Sweater Co.	3
		Wilkes Hosiery Mills Co.	85
		<b>Oxford</b>	
		C. & M. Hosiery Mills	30
		<b>Penrose</b>	
Penrose Mfg. Co., The	59		
		<b>Raleigh</b>	
Glenwood Knitting Mills	20	Glenwood Knitting Mills	50
Melrose Knitting Co.	25	Melrose Knitting Mills Co.	31
Capital Hosiery Mills	20		
Martin Hosiery Mills, The	125		
		<b>Randleman</b>	
Randleman Hosiery Mills Co.	52	Randleman Hosiery Mills	64
		<b>Reidsville</b>	
		William Carter Co., The	42
		<b>Rocky Mount</b>	
Rocky Mount Hosiery Co.	81		
		<b>Salisbury</b>	
		Nancy Hosiery Mills	25
		Wallace-Wilson Hosiery Co.	80
		<b>Sanford</b>	
Effie Hosiery Mills	41		
		<b>Scotland Neck</b>	
Crescent Hosiery Co.	46	Roanoke Hosiery Co.	65
Scotland Neck Cotton Mills	142	Scotland Neck Cotton Mills	252
		<b>Selma</b>	
Ethel Cotton Mills	60		
		<b>Shelby</b>	
		Janet Hosiery Mill	155
		Olive Hosiery Mfg. Co.	50
		Shelby Hosiery Mills Co.	63



Name of Mill	1911	No. of Machines	Name of Mill	1926	No. of Machines
			Staley		
			Staley Hosiery Mill		37
			Statesville		
Bradford Knitting Mill, (Inc.) The	75		Crescent Knitting Co.		140
Steele Hosiery Mill	39		Hall Hosiery Co.		100
			Walton Hosiery Mills		45
			St. Paul's		
			Ernsdson Cotton Mills Co.		40
			Tarboro		
Runnymede Mills	155		Runnymede Mills, Inc.		200
Wilson & Dawson Hosiery Mills	98		Tarboro Knitting Co.		45
			Thomasville		
			Mawrice Mills Co.		50
			Regan Knitting Co.		190
			Tryon		
Tryon Hosiery Co.	250		Wear Knitting Co.		200
			Valdese		
Waldensian Hosiery Mill	50		Waldensian Hosiery Mills Inc.		225
			Martinat Hosiery Mills		20
			Pauline Knitting Mills		60
			Vaughan		
Allgood Hosiery Mill	30				
			Wake Forest		
Watkins Hosiery Co.	10				
			Weldon		
Weldon Cotton Mfg. Co.	29		Weldon Cotton Mfg. Co.		40
			Wendell		
			Wendell Hosiery Mills Co.		110
			Wilmington		
			Wilmington Hosiery Mills, Inc., The		163
			Wilson		
Runnymede Mills No. 3	100		Wilson Knitting Mills		110
			Winston-Salem		
Carolina Mills Co.	70		Hanes Hosiery Mills Co.		560
Hanes, P. H., Knitting Co.	95		Hanes, P. H., Knitting Co.		265
Maline Mills, The	65		Indera Mills Co.		25
Shamrock Hosiery Mills Co.	160				
			Youngsville		
			Youngsville Hosiery Mills		50
			Zebulon		
Zebulon Hosiery Mills	70		Zebulon Hosiery Mills		137
Total	7,085		Total		21,280
SOUTH CAROLINA					
			Anderson		
			Anderson Hosiery Mills		120
			Blackville		
			Sunlight Hosiery Mill		61
			Bowling Green		
Bowling Green Knitting Mills	3				
			Columbia		
Columbia Hosiery Mills	370				
			Gaffney		
			Sultrene Mills, The		40
			Greenwood		
			Greenwood Hosiery Mill		40
			Jonesville		
Palmetto Hosiery Co.	130				
			Landrum		
Blue Ridge Hosiery Mill	116		Appalache Hosiery Mill		100
			Blue Ridge Mills		165
			Manning		
Manning Hosiery Mill	60				
			Montmorenci		
Hallman Knitting Mill Co.	25				
			Rock Hill		
			Catawba Knitting Co.		84
			Spartanburg		
Crescent Mfg. Co.	120		Crescent Mfg. Co.		123
			Carlton Mfg. Co.		50
			Powell Knitting Co.		200
			Star Hosiery Mills		226

(Continued on Page 122)

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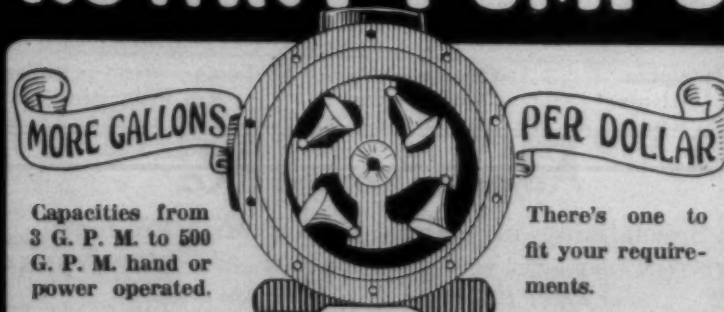
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Kansas City, Mo.  
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429 Broadway,  
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New Orleans, La.  
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New York, N. Y.  
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Strickland Cotton Mills, Moultrie Cotton Mills, Poulan Cotton Mills,  
Royal Cotton Mills

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Philadelphia  
San Francisco

Boston  
Chicago

Cincinnati

St. Joseph  
Shanghai (China)  
Minneapolis

## Wellington, Sears & Company

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Chicago  
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## Amory, Browne & Co.

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Selling Agents for the following Mills:

Cotton Yarns, Combed Peeler, Carded Singles and Ply, Audrey Spinning Co.,  
Weldon, N. C., Mandeville Mills, Carrollton, Ga., Mills Mill, No. 2, Woodruff, S. C.,  
Wabena Mills, Lexington, N. C., White Hall Yarn Mills, White Hall, Ga.  
Grey Goods, Print Cloths, Twills, Sheetings, Pajama Checks, Arcadia Mills,  
Spartanburg, S. C., Clinton Cotton Mills, Clinton, S. C., Hermitage Cotton Mills,  
Camden, S. C., Mills Mill, Greenville, S. C., Osage Mfg. Co., Bessemer City, N. C.

## Cotton Goods

New York.—The cotton goods markets were generally quiet throughout the week. Buyers bid slightly lower prices on gray goods. Sellers would not make concessions for prompt shipment. The total volume of business was rather small. Jobbers however, reported a steady demand from the retail trade, small orders coming in frequently enough to make a very good showing.

Print cloths were not very active. For 64x60, 5.35 yard, 8½ was the market for spot and nearby. First hands held firm for one-half for March, and sold April at three-eighths. Second hands had sold some March at three-eighths.

In 60x48, 6.24 yard, spot and nearby quoted at 7%, and March reported at one-half; 41 for spot of 72x76, 4.25 yard n first hands, and one-eighth less for contract. The situation in 80 squares, 4.00 yard continues strong, with nearby goods, where available, held for big premiums.

The market for sheeting was somewhat quieter than it has been in the past few weeks. In the active styles, mills have committed themselves for production for the next 30 days or so, and prices hold firm. For 36-inch, 5.00 yard, 8 net is the market for April; 8½ net for spot; 5.50 yard at 7½ net for spot and nearby, and one-quarter for contract; 8½ net for March, 4.70 yard, and three-eighths for later; 9½ net for nearby of 37-inch, 48 squares, 4.00 yard, and one-quarter for next month; 10 net for 56x60, 4.00 yard for April, and a premium for nearer delivery; 40-inch, 2.85 yard at 12½ net for spot, and one-quarter for contract.

In wash fabrics, the business continued limited to a few items. Printed pongees were in best demand. Rayon alpacas came next. There has been keen disappointment with the silk and cotton crepes thus far. A number of converters have expressed themselves decidedly on this score. Some are considerably concerned, whereas others believe that silk and cotton crepes will "come into their own" later in the season.

The tire fabric market during the week was quiet with prices steady. Carded peeler cords were nominal at 47 cents for the 23s 5-3 ply, 23s 4-3 ply 48 cents and 13s 3-3 ply 44 cents. Square woven held at 46 cents with Egyptian carded 56 cents. The basis for lenos and chafers was 45 cents to 4 cents. Trade was reported quiet.

The demand for cotton duck continued of a spot and nearby char-

acter with a number of consumers showing interest in various styles which want delivered quickly. New business of a forward nature did not come along in the way noted some weeks ago though contract developments are being looked forward to.

Broadcloths and warp sateens were quiet. Ideas on 100x60 carded continued to range for 12¼ to 13 cents and on 100x64 carded, 13 to 13½ cents. The last heard on 90x60, 4.32 yard, had been 12¼ cents. The situation in 128x68 all-combed seemed generally unchanged. Depending upon the quality, 18 to 18½ cents was the prevailing range. Fall River sold nearby 88x48, carded reverse twist warp sateens at 10½ cents, in a limited way.

Moderate business was reported in combed 100s two-ply imported voiles, which sold in lots between 100 and several hundred pieces, all for spot and nearby delivery. The 41-inch 58x56s were offered at 26 cents and 60x56s at 26 cents also, while 55 squares were 25 cents. The market for the 60x56 runs up to 28 cents quoted. Domestic voiles were not reported active in various quarters. Ordinary hard twist was nominal at 11½ cents, and full extra hard twist 13 cents to 13½ cents.

Carded 142x68s broadcloths spots sold at 14 cents in several instances during the day. There were sales of 100x60s at 12¼ cents net. A number of buyers insisting upon the best 128x68s combed broadcloth paid 19 cents for small quantities. Quick 120x64s two-ply by single, made of peeler cotton, sold at 30½ cents. Combed 144x76s at 22 cents to 22½ cents, and carded 90x60s 12¼ cents.

Cotton goods prices were quoted as follows:

Print cloths, 28-in., 64x64s.	6¼
Print cloths, 28-in., 64x60s.	6¼
Print cloths, 27-in., 64x60s.	6
Gray goods, 38½-in., 64x64s.	9½
Gray goods, 39-in., 68x72s.	10¼
Gray goods, 39-in., 80x80s.	12%
Brown sheetings, 3-yard.	12%
Brown sheetings, 4-yard.	10%
Brown sheetings, standard	13%
Ticking, 8-oz.	22
Denims	17½
Staple gingham, 27-in.	9
Kid finished cambrics	9 a10
Dress gingham	13½a17½
Standard prints	9%

### Hartsell Mills. Concord, N. C.

W. N. Pharr	Supt.
L. W. Radford	Carder
J. T. Howell	Spinner
W. A. Buff	Weaver
W. A. Buff	Cloth Room
N. H. Radford	Master Mechanic

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OF ST. LOUIS, MO.

P. H. PARTRIDGE, Agent, Charlotte, N. C.

Extra staples, and good 1 1-16 and 1½ cotton from Arkansas, Oklahoma, and Texas, and Memphis territory.



# The Yarn Market

Philadelphia, Pa.—The yarn markets continued on a very quiet basis throughout the week. The bulk of the trading was limited to orders covering small lots of yarn for prompt shipment. Inquiry, which has been active for the past few weeks, was less during the week. The price list as a whole showed little change, although in some instances yarns sold out of stock at lower prices than had prevailed the previous week.

Some users of carded knitting yarns sent in inquiries but their offers were generally a good deal below what spinners would accept. There were a few sales for future delivery, but these were the exceptions rather than the rule. In spite of the slow sales for the past several weeks, reports from the South indicate that the majority of the mills are still under orders that will keep them busy for several weeks ago. There has been no accumulation of stocks in spite of the high production.

There has been no change in the combed yarns situation. Most of the business passing consists of light sales of yarns on a spot lot basis.

Some of the dealers in this market were quoting slightly lower prices as the week ended, although this has not been true of carded weaving yarns. The report however, that many spinners favor an advance in prices rather than a reduction.

Quotations in this market were published as follows, although these prices are generally under spinners quotations and in view of the light trading were regarded as nominal:

Southern Two-Ply Chain Warps.	
8s	35 a.
10s	36 a.
12s	37 a.
14s	37 1/2 a.
16s	38 1/2 a.
20s	41 1/2 a.
24s	43 a.
26s	45 a46
30s	55 1/2 a56
40s	60 a60
40s ex.	65 1/2 a66
50s	65 1/2 a66
Southern Two-Ply Skeins.	
8s	34 1/2 a.
10s	35 a.
12s	36 a.
14s	37 a.
16s	37 1/2 a.
20s	37 1/2 a38
24s	40 1/2 a.
26s	42 a42 1/2
30s	44 a.
36s	51 1/2 a.
40s	54 a.
40s ex.	58 a60
50s	64 1/2 a65
60s	71 1/2 a.
Tinged Carpet 3 and 4-ply	
White Carpet 3 and 4-ply	
Part Insulated Waste Yarns.	
6s, 1-ply	29 a.
8s, 2, 3 and 4-ply	30 a30 1/2
10s, 1-ply and 3-ply	32 1/2 a.
12s, 2-ply	33 1/2 a.
16s, 2-ply	35 1/2 a.
20s, 2-ply	36 1/2 a.
26s, 2-ply	41 a41 1/2
50s, 2-ply	42 1/2 a.
Southern Single Chain Warps.	
10s	34 1/2 a.
12s	35 1/2 a.
14s	36 1/2 a.
16s	37 1/2 a.
20s	38 1/2 a.
24s	40 1/2 a.
26s	41 1/2 a.
30s	43 1/2 a.
40s	54 1/2 a.
Southern Single Skeins.	
6s	33 1/2 a.
8s	34 a.
10s	34 1/2 a.

12s	35 1/2 a.
14s	36 a.
16s	37 a.
22s	39 1/2 a.
24s	40 1/2 a.
26s	41 1/2 a42
30s	43 1/2 a44
Southern Frame Cones	
8s	33 1/2 a.
10s	34 a.
12s	34 1/2 a.
14s	35 a.
16s	35 1/2 a.
18s	36 1/2 a.
20s	37 1/2 a.
22s	38 a.
24s	39 1/2 a40
26s	40 1/2 a41
28s	42 a.
30s	40 1/2 a41
30s	42 a44
40s	51 a52
Southern Combed Peeler Skeins, Etc.—Two-Ply.	
16s	56 a60
20s	58 a62
30s	65 a67
36s	75 a80
40s	80 a85
50s	87 1/2 a90
60s	90 a95
70s	1 05a1 10
80s	1 18a1 20
Southern Combed Peeler Cones.	
10s	48 a49
12s	49 a50
14s	49 1/2 a50 1/2
16s	52 1/2 a.
18s	51 a52
20s	53 a.
22s	53 a.
24s	56 a.
26s	56 1/2 a.
28s	57 a.
30s	60 a.
32s	63 a.
34s	65 a.
36s	72 a.
38s	74 a.
40s	75 a.
50s	80 a.
60s	90 a95
70s	1 05a.
80s	1 15a.
Eastern Carded Peeler Thread—Twist Skeins—Two-Ply.	
20s	50 a.
22s	51 a.
24s	54 a.
30s	59 a.
36s	63 a.
40s	65 a.
45s	70 a.

## Cotton Statistics

Boston, Mass.—The total stock of cotton exclusive of linters in all hands in the United States on Jan. 31 was 8,979,000 bales against 7,125,000 bales on the same date last season, an increase of 1,854,000, according to the Cotton Information Service of the Merchants' National Bank, of this city. Stocks at the mills were 1,811,000 against 1,442,000 an increase of 369,000, and stocks in warehouses, at compresses, on plantations and in transit were 7,168,000 against 5,683,000, an increase of 1,485,000.

Exact figures are not available on the distribution of the stock of lint cotton outside the mills but it is estimated that the increase of 1,485,000 in such stocks consisted of 40,000 increase in stocks on plantations and at uncounted country towns, 700,000 increase in stocks at counted interior towns, 100,000 increase in stocks at ports, and 300,000 increase in transit and elsewhere, says the Merchants Bank. The accumulation of cotton in this country is due chiefly to the fact that, while the crop was more than 2,000,000 bales larger than last year, domestic consumption in the first half of the season has been only about 200,000 more than in the same period last season while exports have been less than last season.

## CATLIN & COMPANY

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Fred H. Dary, Mgr.

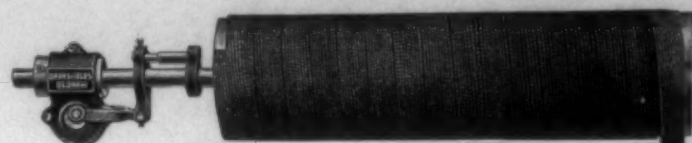
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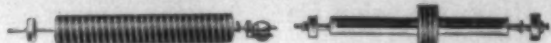


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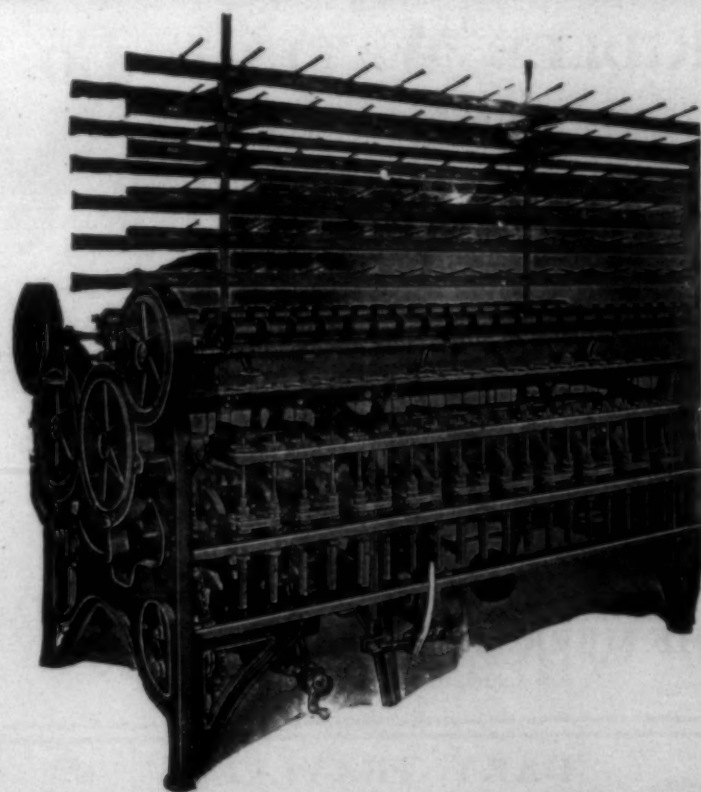
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Save 50 per cent. operative power

Produce more even yarn

TAPE-DRIVEN TWISTERS

COLLINS BROTHERS MACHINE COMPANY, Pawtucket, R. I.

## 1911

## Growth of Knitting Mills

## 1926

(Continued from Page 119)

Name of Mill	No. of Machines	Name of Mill	No. of Machines
	1911		1926
Union			
Excelsior Knitting Mills	240	Excelsior Mills	240
		Gault Mfg. Co.	150
Walhalla			
Hetrick Hosiery Mills	144		
Westminster			
Westminster Knitting Mills	60		
Total	1,288	Total	1,624
TENNESSEE			
Athens			
Athens Hosiery Mills	142	Athens Hosiery Mills	300
		Chillrowee Mills Co.	80
		Fashion Mill	30
Bristol			
Jones, Ed. P.	31		
Chattanooga			
Chattanooga Knitting Mills	200	Chattanooga Knitting Mills	160
Chickamauga Knitting Mills	60	Browning Hosiery Mills, Inc.	160
Davis Hosiery Mills	369	Champion Knitting Mills	125
		Davenport Hosiery Mills	250
		Mathis & Davis Co.	350
		McAllester Hosiery Mills	130
		Mountain City Knitting Mills	102
		Nick-a-Jack Hosiery Mills	293
		Richmond Spinning Co.	75
		Signal Knitting Mills	90
		Smith Hosiery Mills Co.	70
		United Hosiery Mills Corp.	1,720
		Watkins Hosiery Mill	20
Cleveland			
Cleveland Hosiery Mills	100	Knox Hosiery Mills	90
Weiss Hosiery Mill	50	Bacon, C. H., Co.	280
		Weiss Hosiery Mill	100
Clinton			
Magnet Knitting Mills	115	Magnet Knitting Mills	300
Coal Creek			
		Magnet Knitting Mills No. 2	200
Dayton			
		Dayton Hosiery Mills	140
Elizabethton			
		Elizabethton Hosiery Mills	50
Englewood			
		Englewood Mfg. Co.	100
		Eureka Cotton Mills	31
Etowah			
		Richmond Hosiery Mills	100
Evansville			
		Dayton Hosiery Mills	30
French Broad			
		Burnett Knitting Mills	50
Graysville			
		Richmond Hosiery Mill	150
Greenville			
		Bacon, C. H., Co.	100
Harriman			
		Harriman Hosiery Mills	534
Jackson			
		Priester Mills	180
Jasper			
		Pryor Hosiery Mills	60
Jellico			
		Campbell Knitting Mills	245
Johnson City			
		Johnson City Mills	125
Kingsport			
		Kingsport Hosiery Mills, Inc.	380
Kingston			
		Kingston Hosiery Mill	60
Knoxville			
Appalachian Mills	35	Appalachian Mills Co.	175
Knoxville Knitting Mills Co.	200	Knoxville Knitting Mills Co.	616
Standard Knitting Mills	100	Standard Knitting Mills	180
		Ashe Hosiery Mills	120
		Attix Hosiery Mills	12

(Continued on Page 124)



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## New England Southern Mills

Boston, Mass.—For New England Southern Mills, one of the country's largest textile enterprises, and one in which much New England capital is interested, 1925 was a year of improvement in many directions. Particularly significant was the fact that the company earned a balance for prior preferred after all charges of slightly in excess of \$200,000, compared with a deficit after charges in 1924 of \$537,953.

A record sales volume, with a total of approximately \$19,000,000 against \$15,588,471 in 1924, contributed largely to last year's successful results. All the company's plants, with their 362,000 spindles, operated nearly at capacity through most of the twelve months. The sharp decline in cotton values in the early fall, however, was too severe a handicap from which to recover entirely, and meant that the first six months' profit of \$308,388 had been cut down about \$100,000 by the end of the year. A profit was earned in every quarter but the third.

On sales total of \$19,000,000, profit before charges in 1925 came to \$1,890,000. Depreciation claimed \$510,000, interest on notes payable \$310,000, interest on term debt \$710,000 and miscellaneous charges \$160,000, making net profit roughly \$200,000. This was equal to \$5 per share on the New England Southern Mill prior preferred, against full year's dividend requirement of \$7. Following \$7,377,000 notes and \$6,046,049 subsidiary securities it does not own, the company is capitalized at \$4,000,000 prior preferred, \$5,000,000 preferred, and 203,172 no-par common shares, of which latter 49.2 per cent are owned by Lockwood, Greene & Co.—Boston News Bureau.

## German Cotton Manufacturing Depressed

Boston, Mass.—The German cotton manufacturing industry continues depressed, with many mills running only half-time, according to the Cotton Information Service of the Merchants National Bank of this city. Many yarn buyers in Germany are declining to accept deliveries of high-priced yarns which they ordered last summer and autumn.

The depression in the Germany cotton manufacturing industry is a phase of the general business reaction in Germany resulting from tight money, unsound credits, and loss of export trade. With consumption of goods reduced by industrial unemployment, distribution impeded by the cancellation of high-priced contracts, and manufacturers lacking capital to carry stocks, mill managements have been obliged to reduce operations drastically.

Bremen, the big market through which most American cotton enters Germany, has taken much more American cotton this season than last, its receipts to January 30 totaling 1,486,000 bales against 980,000 in the same period last season, and 670,000 the season before last, says the Merchants Bank.—Boston News Bureau.

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FIG. 27

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Poughkeepsie, N. Y.

1911

Growth of Knitting Mills

1926

(Continued from Page 122)

Name of Mill	No. of Machines	Name of Mill	No. of Machines
		Holston Mfg. Co.	350
		Silk Tie Knitting Co., Inc.	20
		1926	
		La Follette	
La Follette Hosiery Mills	70		
		Lawrenceburg	
		May Hosiery Mills	100
		Lenoir City	
Holston Mfg. Co.	500	Bacon, C. H., Co.	640
		Loudon	
Loudon Hosiery Mills	256	Bacon, C. H., Co.	500
		Madisonville	
Madisonville Knitting Mill	30		
		Manchester	
		Read Hosiery Mills	25
		Maryville	
Maryville Hosiery Mills	85	Ideal Hosiery Mills	266
		McMinnville	
		Read Hosiery Mills	100
		Morristown	
		Bacon, C. H., Co.	500
		Murfreesboro	
		Sunshine Hosiery Mill	400
		Nashville	
Hartford Hosiery Mills	40	Hartford Hosiery Mills	325
May Hosiery Mills	110	May Hosiery Mills	500
Nashville Hosiery Mills	150	Cumberland Hosiery Mill	100
		Washington Hosiery Mills	100
		Newport	
		Bacon, C. H., Co.	100
		Newport Knitting Mill	50
		Niota	
Crescent Hosiery Mill	61	Crescent Hosiery Mill	69
		Oneida	
		Oneida Mills	75
		Philadelphia	
		Philadelphia Hosiery Mill	50
		Pikeville	
		Pikeville Hosiery Mills	60
		Rockwood	
Rockwood Mills	100	Rockwood Mills	219
		Rogersville	
		Kitsmiller, F. Y., & Son	150
		Sevierville	
		Bacon, C. H., Co.	100
		Shelbyville	
		Robinson-McGill Mfg. Co.	30
		Soddy	
		Soddy Hosiery Mills	225
		South Pittsburg	
Aycock Hosiery Mills	55	Aycock Hosiery Mills	200
		Spring City	
		Spring City Hosiery Mills	41
		Sweetwater	
Mascot Knitting Mills	110	Sweetwater Hosiery Mills	102
Sweetwater Hosiery Mills, The	114		
		Telford	
		Telford Knitting Mills	15
		Trenton	
		Trenton Textile Mills	40
		Whitwell	
		Aycock Hosiery Mills	70
		Winchester	
Franklin Hosiery Mills	120	Franklin Hosiery Mills	226
Total	3,195	Total	14,080



Name of Mill	1911	No. of Machines	Name of Mill	1926	No. of Machines
<b>TEXAS</b>					
			Cuero		
Heinrich, G.	4				
			Dallas		
			Fogarty Silk Knitting Mills	10	
			Texas Hosiery Mills	280	
			Fort Worth		
			Dixie Hosiery Mill	25	
			Houston		
			Houston Hosiery Mills	25	
			Sherman		
			Pool Knitting Mills	25	
Total	4		Total	365	
<b>VIRGINIA</b>					
			Berkley		
Elizabeth Knitting Mills	40				
			Big Stone Gap		
			Big Stone Gap Knitting Mill	200	
			Bristol		
			Grey Hosiery Mills	125	
			Tenneva Hosiery Mills	200	
			Danville		
Danville Knitting Mills	300		Danville Knitting Mills	800	
			Galax		
			Galax Knitting Co.	75	
			Gate City		
			Gate City Hosiery Mills	250	
			Lynchburg		
Lynchburg Hosiery Mills (Inc.)	125		Lynchburg Hosiery Mills	525	
			Martinsville		
			Pannill Knitting Co.	17	
			Norfolk		
Chesapeake Knitting Mills	40		Chesapeake Knitting Mills	58	
Berkley Knitting Mills, The (Inc.)	34		Elizabeth Knitting Mill	58	
Norfolk Knitting Mills Corp.	50				
			Portsmouth		
Parker Hosiery Mill & Dye Works (Inc.)	111		Parker Hosiery Mill and Dye Works, Inc.	93	
Sloane, Wm. & Co.	52				
			Pulaski		
			Paul Knitting Mill	400	
			Radford		
			Paul Knitting	100	
			Roanoke		
			Athens Knitting Mill	110	
			Roanoke Knitting Mills	27	
			South Boston		
Century Knitting Mills	50				
			Staunton		
			French Fashions, Inc.	50	
			Suffolk		
Bell Hosiery Mills (Inc.)	25		Bell Hosiery Mills, Inc.	350	
Cobb, A. H. & W. E.	200				
Maxwell Hosiery Mills (Inc.)	30				
			Virgilina		
Virgilina Hosiery Mills (Inc.)	25				
			Winchester		
Lewis Jones Knitting Co.	150		Lewis Jones Knitting Co.	50	
Total	1,235		Total	3,488	

**TOTAL BY STATES**

	1911	1926
Alabama	432	1,687
Arkansas		80
Georgia	3,614	6,613
Kentucky	16	732
Louisiana	332	719
Mississippi	100	400
North Carolina	7,085	21,280
South Carolina	1,268	1,624
Tennessee	3,195	14,080
Texas	4	365
Virginia	1,235	3,488
Total	17,281	51,068

*The Fact that*



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WANT position as overseer weaving plain or fancy work. Long experience and get excellent results. References. No. 4787.

WANT position as overseer weaving or designer. Now employed as designer. Experienced on all kinds of fancy goods. Would like to correspond with fine goods mills needing competent man. No. 4778.

WANT position as weave room overseer in mill of 200 to 500 looms, preferably on sheetings, drills, print cloths, duck or colored chambray. 18 years experience in weaving, I. C. S. graduate. Experience covers wide range of goods in many mill. Good references. No. 4779.

WANT position as master mechanic. Experienced on steam and electric drive, have had varied experience on big jobs. Licensed marine and stationary engineer. College man, will not consider small job. No. 4790.

WANT position as overseer carding. Good man with references and long experience in card room. No. 4791.

WANT position as superintendent yarn or weave mill. Now employed as night superintendent. First class man who can get results. Best of references. No. 4792.

WANT position as superintendent any size mill, yarn or cloth. High class spinner and weaver, understand white and colored goods, plain and fancy. References. No. 4793.

WANT position as superintendent of yarn or twine mill. Now employed, but wish better place. Experienced and reliable man who can give excellent service. No. 4794.

WANT position as superintendent, prefer North or South Carolina. Now employed. Good references to show character and ability. No. 4795.

WANT position as overseer carding or spinning prefer Carolinas. Have run present job for 5 years and given satisfaction. Have had 14 years as overseer. Good references. No. 4796.

WANT position as overseer weaving. Experienced and reliable man who can handle weave room in efficient and economical manner. No. 4797.

WANT position as superintendent of carder and spinner. Qualified to handle either position. Best of references. No. 4798.

WANT position as overseer cloth room or small weave room on plain goods. Experienced as weaver. Cloth room man and shipping clerk. Married, have family. Excellent references. No. 4799.

WANT position as carder or spinner or superintendent small mill. Now employed. Can give first class references. No. 4800.

WANT position as carder or spinner or either. Long experience in number of mills. Best of references as to character and ability. No. 4801.

THOROUGHLY competent superintendent or assistant superintendent wants position. Would take assistant's place. Textile graduate, married, 20 years experience as superintendent on white and colored goods. Know cotton grading, dyeing and finishing. Best of references. Will come to Carolinas or Georgia on trial at own expense. No. 4802.

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- Bleaching of Soda—**  
Mathieson Alkali Works, Inc.
- Bleaching—**  
Joseph Bancroft & Sons Co.  
Sayles Finishing Plants, Inc.
- Bleachers—**  
Southern Artsilk Bleach & Dye Works, Inc.
- Bleaching Materials—**  
Arabel Mfg. Co.  
Arnold, Hoffman & Co., Inc.  
L. Sonneborn Sons, Inc.  
National Oil Products Co., Inc.  
Bosson & Lane.  
J. & Ford Co.  
National Aniline & Chemical Co.  
United Chemical Products Co.  
Wolf, Jacques & Co.
- Bobbin Holders—**  
Fournier & Lemoine.
- Bobbins and Spools—**  
Jas. H. Billington Co.  
David Brown Co.  
Courtney, The Dana S. Co.  
Draper Corporation.  
Jordan Mfg. Co.  
Lestershire Spool & Mfg. Co.  
Lowell Shuttle Co.  
Mossberg Pressed Steel Corp.  
Walter L. Parker Co.  
Steel Heddle Mfg. Co.
- Bobbin Saving Treatment—**  
The Textilac Co.
- Boxes—**  
Wilts Veneer Co.
- Box Shocks—**  
Wilts Veneer Co.
- Blowers and Blower Systems—**  
Carrier Engineering Co.  
Parks-Cramer Co.
- Breton Mineral Oil—**  
Borne, Scrymser Co.
- Brushes—**  
Atlanta Brush Co.  
Curtis & Marble Machine Co.
- Brushing Machines—**  
Curtis & Marble Machine Co.
- Bobbin Stripper—**  
Terrell Machine Co.
- Calenders—**  
H. W. Butterworth & Sons Co.  
B. F. Perkins & Son, Inc.  
Textile Finishing Machinery Co.  
Calender Roll Grinders.  
B. S. Roy & Son Co.
- Cards—**  
Woonsocket Machine & Press Co., Inc.  
Saco-Lowell Shops.  
Whitins Machine Works.
- Card Clothing—**  
Ashworth Bros.  
Charlotte Mfg. Co.  
Howard Bros. Mfg. Co.  
Wickwire Spencer Steel Co.
- Card Grinding Machinery—**  
Easton & Burnham Machine Co.  
Dronfield Bros.  
T. C. Entwistle Co.  
Roy & Son Co., B. S.  
Saco-Lowell Shops.  
Whitins Machine Works.  
Woonsocket Machine & Press Co., Inc.
- Carrier Aprons—**  
Link-Belt Co.  
Wickwire Spencer Steel Co.
- Caustic Potash—**  
A. Klipstein & Co.
- Caustic Soda—**  
Arnold, Hoffman & Co., Inc.  
A. Klipstein & Co.  
Mathieson Alkali Works, Inc.
- Chain Belts and Drives—**  
Charles Bond Company  
Link-Belt Co.  
Morse Chain Co.
- Chemicals—**  
L. Sonneborn Sons, Inc.  
J. B. Ford Co.  
Hart Products Corp.  
A. Klipstein & Co.  
Mathieson Alkali Works, Inc.  
National Oil Products Co.  
Seydel Chemical Co.  
Seydel-Woolley Co.
- Cloth Presses—**  
Economy Baler Co.
- Cloth-Winding Paper Cores—**  
Cores for Cloth-Winding—  
Clutches (Friction)—  
Charles Bond Company  
Textile Finishing Machinery Co.  
Woods, T. B. & Sons Co.
- Cloth Winders and Doublers—**  
Curtis & Marble Machine Co.
- Clutch Spindles—**  
Fournier & Lemoine.
- Coal Handling Machinery—**  
Link-Belt Co.
- Combs—**  
Steel Heddle Mfg. Co.
- Combs (Beamers, Warpers, Slashers)—**  
T. C. Entwistle Co.  
Easton & Burnham Machine Co.
- Commission Merchants—**  
Cattlin & Co.  
J. H. Lane & Co.  
Mauney-Steel Co.  
Paulson, Linkroum & Co.  
Ridley, Watts & Co.  
The Farish Co.
- Compressors (Air)—**  
Allis-Chalmers Mfg. Co.
- Condensers—**  
Allis-Chalmers Mfg. Co.
- Conditioning Machines—**  
American Moistening Co.
- Conduit Fittings—**  
Chicago Fuse Mfg. Co.
- Cones (Paper)—**  
Sonoco Products Co.
- Cone Vice Couplings—**  
William Sellers & Co., Inc.
- Conveying Systems—**  
Link-Belt Co.
- Coolers (Air)—**  
—See Humidifying Apparatus.
- Cotton—**  
Lesser-Goldman Cotton Co.  
Sanders, Orr & Co.  
Stewart Bros. Cotton Co.  
S. B. Tanner, Jr.  
Wm. & York Wilson.
- Cotton Machinery—**  
Ashworth Bros.  
Barber-Colman Co.  
Collins Bros. Machine Co.  
Crompton & Knowles Loom Works.  
Dixon Lubricating Saddle Co.  
Draper Corporation.  
Easton & Burnham Machine Co.  
T. C. Entwistle Co.  
Fales & Jenks Machine Co.  
H. & B. American Machine, Inc.  
Hopdale Mfg. Co.  
National Ring Traveler Co.  
Roy & Son, B. S.  
Saco-Lowell Shops.  
Southern Spindle & Flyer Co.  
Stafford Co., The  
Terrell Machine Co.  
Tolhurst Machine Works.  
Universal Winding Co.  
Whitins Machine Works.  
Whitinsville Spinning Ring Co.  
Woonsocket Machine & Press Co., Inc.
- Cotton Openers and Tappers—**  
Saco-Lowell Shops.  
Whitins Machine Works.  
Woonsocket Machine & Press Co., Inc.
- Cotton Softeners—**  
Arabel Mfg. Co.  
Arnold, Hoffman & Co., Inc.  
Bosson & Lane.  
Hart Products Corp.  
E. F. Houghton & Co.  
A. Klipstein & Co.  
National Oil Products Co.  
Seydel Chemical Co.  
Seydel-Woolley Co.  
L. Sonneborn Sons, Inc.  
Wolf, Jacques & Co.
- Cotton Waste Machinery—**  
Woonsocket Machine & Press Co., Inc.  
Saco-Lowell Shops.  
Whitins Machine Works.
- Counters (Revolution, Hank, Pick, etc)—**  
The Root Co.
- Couplings (Shaft)—**  
Charles Bond Company  
William Sellers & Co., Inc.  
Wood's T. B. Sons Co.
- Cranes—**  
Link-Belt Co.
- Debby Chain—**  
Crompton & Knowles Loom Works.  
Rice Debby Chain Co.
- Dothing Boxes—**  
Rogers Fibre Co.
- Doublers—**  
Saco-Lowell Shops.  
Textile Finishing Machinery Co.  
Universal Winding Co.
- Drawing Rolls—**  
Metallic Drawing Roll Co.
- Drink Fountains—**  
Euro Sanitary Drinking Fountain Co.
- Drives (Silent Chain)—**  
Charles Bond Company  
Link-Belt Co.  
Morse Chain Co.
- Drop Wires—**  
Crompton & Knowles Loom Works.  
Draper Corporation.  
Hopdale Mfg. Co.  
Mossberg Pressed Steel Corp.  
R. I. Warp Stop Equipment Co.
- Dryers (Centrifugal)—**  
Roy & Son Co., B. S.  
Tolhurst Machine Works.
- Dyers—**  
Southern Artsilk Bleach & Dye Works, Inc.
- Dyeing, Drying, Bleaching and Finishing Machinery—**  
Coker Machinery & Foundry Co.  
American Laundry Machinery Co.  
H. W. Butterworth & Sons Co.  
Franklin Process Co.  
Klauder-Weldon Dye Machinery Co.  
Perkins, B. F. & Sons, Inc.  
Rodney Hunt Machine Co.  
Textile Finishing Machinery Co.
- Dyestuffs and Chemicals—**  
Borne, Scrymser Co.  
Bosson & Lane.  
R. I. du Pont de Nemours & Co., Inc.
- General Dyestuff Corp.**  
A. Klipstein & Co.  
National Oil Products Co., Inc.  
Newport Chemical Works  
National Aniline & Chemical Co.  
United Chemical Products Co.  
Wolf, Jacques & Co.
- Dye Works—**  
Franklin Process Co.  
Sayles Finishing Plants, Inc.
- Electric Fans—**  
Allis-Chalmers Mfg. Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Electric Hoists—**  
Allis-Chalmers Mfg. Co.  
Link-Belt Co.
- Electric Lighting—**  
Allis-Chalmers Mfg. Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Electric Motors—**  
Allis-Chalmers Mfg. Co.  
Charles Bond Company  
Fairbanks-Morse Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Electric Supplies—**  
Chicago Fuse Mfg. Co.  
Cooper-Hewitt Electric Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Elevators—**  
Link-Belt Co.  
—See Architects and Mill Engineers.
- Engineers (Ventilating)—**  
Bahnsen Co.  
Parks-Cramer Co.
- Engines (Steam, Oil, Gas, Pumping)—**  
Allis-Chalmers Mfg. Co.  
Fairbanks, Morse & Co.  
Sydnor Pump & Well Co.  
—See also Ventilating Apparatus.
- Expert Textile Mechanic—**  
J. D. Hollingworth.
- Extractors—**  
American Laundry Machine Co.  
Tolhurst Machine Works.
- Fences (Iron and Wire)—**  
Page Fence and Wire Products Assn.  
Wickwire Spencer Steel Co.
- Fibre Specialties—**  
Rogers Fibre Co.
- Finishers—**  
Sayles Finishing Plants, Inc.
- Finishing Compounds—**  
Arnold, Hoffman & Co., Inc.  
Borne, Scrymser Co.  
Hart Products Corp.  
E. F. Houghton & Co.  
A. Klipstein & Co.  
National Oil Products Co.  
Seydel-Woolley Co.  
L. Sonneborn Sons Co.
- Finishing Machinery—**  
H. W. Butterworth & Sons Co.  
B. F. Perkins & Son, Inc.
- Finishing Machinery—**  
—See Dyeing, Drying, Bleaching and Finishing.
- Fiat Wall Paint—**  
E. I. du Pont de Nemours & Co., Inc.  
U. S. Gutta Percha Paint Co.
- Flexible Couplings—**  
T. B. Wood's Sons Co.
- Fiber Stands—**  
Wood's T. B. Sons Co.
- Fluted Rolls—**  
Collins Bros. Machine Co.  
Fales & Jenks Machine Co.  
Woonsocket Machine & Press Co., Inc.  
Whitins Machine Works.
- Flyer Pressers and Overhaulers—**  
Southern Spindle & Flyer Co.  
Whitins Machine Works.  
Woonsocket Machine & Press Co., Inc.
- Flyers—**  
Saco-Lowell Shops.  
Southern Spindle & Flyer Co.  
Whitins Machine Works.
- Frames—**  
Steel Heddle Mfg. Co.
- Friction Clutches—**  
Woods, T. B. Sons Co.  
See Clutches.
- Fuses—**  
Chicago Fuse Mfg. Co.  
Garrett Roll Grinders—  
B. S. Roy & Son Co.
- Gearing (Silent Flexible)—**  
Link-Belt Co.
- Gears—**  
Charles Bond Company  
Dan Gear Co.  
Ferguson Gear Co.  
Gears-Silent—  
Charles Bond Company  
Ferguson Gear Co.
- Gear Makers—**  
Charles Bond Company  
Ferguson Gear Co.
- Generating Sets—**  
Fairbanks, Morse & Co.
- Grate Bars—**  
Thomas Grate Bar Co.



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Gudgeon Rolls—  
Washburn.  
Easton & Burnham Machine Co.  
Roy, B. S. & Son Co.
- Hangers (Ball and Socket)—**  
Charles Bond Company  
William Sellers & Co., Inc.  
T. B. Wood's Sons Co.
- Hangers (Shaft)—**  
Charles Bond Company  
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Hyatt Roller Bearing Co.  
William Sellers & Co., Inc.  
Wood's T. B. & Sons Co.
- Hardware Supplies—**  
Textile Mill Supply Co.
- Harness Twine—**  
Garland Mfg. Co.
- Harness and Frames—**  
—See Heddles and Frames.
- Heddles and Frames—**  
Garland Mfg. Co.  
Steel Heddle Mfg. Co.  
L. S. Watson Mfg. Co.
- Hoists—**  
Fairbanks, Morse & Co.
- Hopper-Feed Hand Stokers—**  
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- Hosiery Dyeing Machinery—**  
Cocker Machinery & Foundry Co.
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American Moistening Co.  
The Bahnsen Co.  
Carrier Engineering Co.  
Parks-Cramer Co.
- Humidity Controller—**  
American Moistening Co.  
The Bahnsen Co.  
Carrier Engineering Corp.  
Parks-Cramer Co.
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American Laundry Machinery Co.  
Tolhurst Machine Co.
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Morrow Machine Co., The.
- Knotters—**  
Barber-Colman Co.  
Morrow Machine Co.
- Knitting Lubricants—**  
National Oil Products Co.
- Laundry Machinery—**  
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Graton & Knight Mfg. Co.
- Leather Loom Pickers—**  
Charles Bond Company  
E. H. Jacobs Mfg. Co.
- Leather Strapping—**  
Charles Bond Company  
Edward R. Ladew Co.  
Graton & Knight Mfg. Co.  
E. F. Houghton & Co.
- Leather Straps—**  
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Draper Corporation.  
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Mossberg Pressed Steel Corp.
- Loom Drop Wires—**  
Crompton & Knowles Loom Works.  
Hopedale Mfg. Co.  
Mossberg Pressed Steel Corp.  
Steel Heddle Mfg. Co.  
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E. H. Jacobs Mfg. Co.  
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Westinghouse Electric & Mfg. Co.
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—See Architects.
- Mill Lighting—**  
—See Electric Lighting.
- Mill Starches—**  
Arnold, Hoffman & Co., Inc.  
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Dixon Lubricating Saddle Co.  
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Garland Mfg. Co.  
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- Napper Clothing—**  
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- Napper Roll Grinders—**  
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Allis-Chalmers Mfg. Co.  
General Electric Co.  
Westinghouse Electric & Mfg. Co.
- Oils—**  
Arnold, Hoffman & Co., Inc.  
E. F. Houghton & Co.  
A. Klipstein & Co.  
National Oil Products Co.  
N. Y. & N. J. Lubricant Co.  
L. Sonneborn Sons, Inc.  
Wolf, Jacques & Co.
- Oil Burners—**  
Scott-Newman Oil Burner Co.
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National Oil Products Co.
- Oils (Rayon)—**  
National Oil Products Co.
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H. & B. American Machine Co.  
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- Overhaulers—**  
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Wickwire Spencer Steel Co.
- Perforated Metals—**  
Wickwire Spencer Steel Co.
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Garland Mfg. Co.  
Graton & Knight Mfg. Co.
- Picker Sticks—**  
Charles Bond Company  
Garland Mfg. Co.
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H. W. Butterworth & Sons Co.  
Cocker Machinery & Foundry Co.  
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- Pipe and Fittings—**  
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Link-Belt Co.
- Power Transmission Machinery—**  
Allis-Chalmers Mfg. Co.  
Charles Bond Company  
Hyatt Roller Bearing Co.  
Fafnir Bearing Co.  
Link-Belt Co.
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H. & B. American Machine Co.  
Saco-Lowell Shops.  
Whitin Machine Works.
- Woonsocket Machine & Press Co., Inc.**
- Pickers and Lappers—**  
Whitin Machine Works.
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Washburn.
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- Pumps (Boiler Feed; also Centrifugal)—**  
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Washburn.
- Quillers—**  
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- Quill Cleaners—**  
Terrell Machine Co.
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Whitin Machine Works.  
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Dary Ring Traveler Co.  
National Ring Traveler Co.  
Victor Ring Traveler Co.  
U. S. Ring Traveler Co.
- Rolls—**  
H. W. Butterworth & Sons Co.  
Collins Bros. Machine Co.  
Fales & Jenks Machine Co.  
Rodney Hunt Machine Co.  
The Whitin Machine Works.  
Woonsocket Machine & Press Co., Inc.  
Saco-Lowell Shops.  
Southern Spindle & Flyer Co.  
Textile Finishing Machinery Co.
- Rolls (Metal)—**  
Rodney Hunt Machine Co.
- Rolls (Rubber)—**  
Rodney Hunt Machine Co.
- Rolls (Wood)—**  
Rodney Hunt Machine Co.  
Washburn.
- Roller Bearings—**  
Charles Bond Company  
Fafnir Bearing Co.  
Hyatt Roller Bearing Co.
- Roving Cans and Boxes—**  
Denison Mfg. Co.  
Rogers Fibre Co.
- Roving Machinery—**  
Whitin Machine Works.  
Woonsocket Machine & Press Co., Inc.  
Saco-Lowell Shops.
- Saddles—**  
Dixon Lubricating Saddle Co.
- Sanitary Equipment—**  
Vogel Co., Joseph A.
- Sanitary Fountains—**  
—See Drinking Fountains.
- Scales—**  
Fairbanks, Morse & Co.
- Scalloped Machines—**  
Morrow Machine Co.
- Securing Powders—**  
Bosson & Lane.  
Ford, J. B. Co.  
National Oil Products Co.
- Scrubbing and Cleaning Powders—**  
The Denison Mfg. Co.
- Sesquicarbonate of Soda—**  
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Deering, Milliken & Co.  
Reeves Bros.
- Selling Agents (Cotton Goods)—**  
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Curran & Barry.  
Deering, Milliken & Co.  
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Leslie, Evans & Co.  
Reeves Bros.  
Wellington, Sears & Co.
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Morrow Machine Co.
- Sewing Machines and Supplies—**  
Curtis & Marble Machine Co.  
Shafting, Hangers, Etc.  
—See Power Transmission Machinery.
- Shafting—**  
Fafnir Bearing Co.  
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Washburn.
- Shell Stitch Machines—**  
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Link-Belt Co.  
Morse Chain Co.
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Textile Finishing Machinery Co.
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Arnold, Hoffman & Co., Inc.  
Arabol Mfg. Co.  
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L. Sonneborn Sons, Inc.  
Stein, Hall & Co.
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General Dyestuff Corp.  
Hart Products Corp.  
A. Klipstein & Co.  
National Oil Products Co.  
United Chemical Products Co.  
John P. Marston & Co.  
Seydel Chemical Co.  
Seydel-Woolley Co.  
L. Sonneborn Sons, Inc.  
Wolf, Jacques & Co.
- Slashers Combs—**  
Easton & Burnham Machine Co.  
T. C. Entwistle Co.  
High Point Loom Reed & Harness Co.  
Steel Heddle Mfg. Co.
- Textile Finishing Machinery Co.**
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Arabol Mfg. Co.  
Arnold, Hoffman & Co., Inc.  
Bosson & Lane.  
General Dyestuff Corp.  
E. F. Houghton & Co.  
National Oil Products Co., Inc.  
Seydel Chemical Co., The.  
L. Sonneborn Sons, Inc.  
United Chemical Products Corp.  
U. S. Bobbin & Shuttle Co.  
Wolf, Jacques & Co.
- Softeners—**  
Arnold, Hoffman & Co., Inc.  
E. F. Houghton & Co.  
National Oil Products Co., Inc.  
Seydel-Woolley Co.  
L. Sonneborn Sons Co.
- Skewers—**  
David Brown Co.  
Courtney, The Dana S. Co.  
T. C. Entwistle Co.  
Jordan Mfg. Co.  
Walter L. Parker Co.  
U. S. Bobbin & Shuttle Co.
- Slashers and Equipment—**  
Saco-Lowell Shops.
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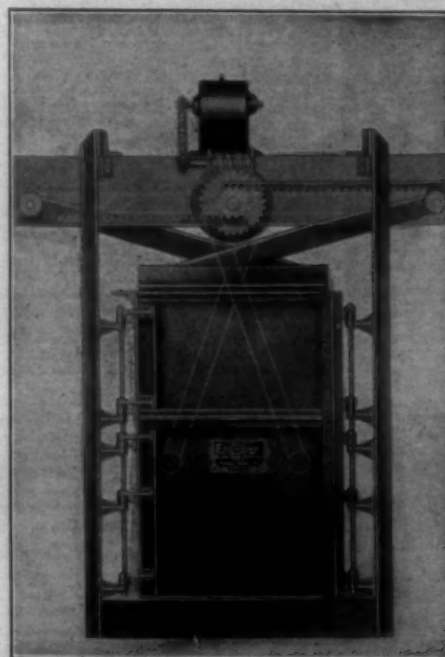
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